

Pearson Higher Nationals in Paramedic Science

Specification

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Issue 1

Pearson BTEC Higher Nationals

Specification

**Pearson
BTEC Level 4 Higher National Certificate in
Emergency and Unscheduled Care**

**Pearson
BTEC Level 5 Higher National Diploma in
Paramedic Science**

Edexcel, BTEC and LCCI qualifications

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1. Introduction

BTEC is one of the world's most successful and best-loved applied learning brand, engaging students in practical, interpersonal and thinking skills for more than 30 years.

BTECs are work-related qualifications for students taking their first steps into employment, or for those already in employment and seeking career development opportunities. BTECs provide progression into the workplace either directly or via study at university and are also designed to meet employers' needs. Therefore, Pearson BTEC Higher National qualifications are widely recognised by industry and higher education as the principal vocational qualification at Levels 4 and 5.

When redeveloping the Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science, we collaborated with a wide range of students, employers, higher education providers, colleges and subject experts, to ensure that the new qualifications meet their needs and expectations. We also worked closely with the relevant professional bodies, to ensure alignment with recognised professional standards.

There is now a greater emphasis on employer engagement and work readiness. These new BTEC Higher National qualifications are designed to reflect this increasing need for high quality professional and technical education pathways at Levels 4 and 5, thereby providing students with a clear line of sight to employment and to progression to a degree at Level 6.

1.1 The Student Voice

Students are at the heart of what we do. That is why, from the outset, we consulted with students in the development of these qualifications. We involved them in writing groups, sought their feedback, and added their voices and views to those of other stakeholders.

The result, we believe, are qualifications that will meet the needs and expectations of students worldwide.

1.2 Why choose Pearson BTEC Higher Nationals?

Pearson BTECs combine a student-centred approach with a flexible, unit-based structure. Students are required to apply their knowledge to a variety of assignments and activities, with a focus on the holistic development of practical, interpersonal and higher level thinking skills. Assessment reflects not only what the student knows but also what he or she can do to succeed in employment and higher education in an ethical manner.

Employers are looking for recruits with a thorough grounding in the latest sector requirements. They are also seeking employees with work-ready skills. Higher education students must have experience of research, extended writing and meeting deadlines. The BTEC Higher Nationals address these various requirements by providing content that is closely aligned with the needs of employers, professional bodies and higher education for a skilled future workforce.

Qualification frameworks

Pearson BTEC Higher National qualifications are designated higher education qualifications in the UK. They are aligned to the Framework for Higher Education Qualifications (FHEQ) in England, Wales and Northern Ireland, and Quality Assurance Agency (QAA) Subject Sector Benchmarks. These qualifications have been regulated to the Ofqual Regulated Qualifications Framework (RQF).

1.3 Qualification titles

Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care

Pearson BTEC Level 5 Higher National Diploma in Paramedic Science

1.4 Qualification codes

Ofqual Regulated Qualifications Framework (RQF) Qualification numbers:
Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care: 603/0557/5

Pearson BTEC Level 5 Higher National Diploma in Paramedic Science: 603/0558/7

1.5 Awarding institution

Pearson Education Ltd

1.6 Professional recognition

Students completing their Pearson BTEC Level 5 Higher National Diploma in Paramedic Science will be aiming to gain professional accreditation in the field of paramedic practice by making them eligible to apply for registration with the Health and Care Professions Council (HCPC). They may then progress to 'top up' their qualification to an Honours degree with the option to specialise in a range of practice areas.

The Level 5 Higher National Diploma in Paramedic Science will be recognised as meeting the educational standard for registering with HCPC as a paramedic. It was therefore essential that we developed these qualifications in close collaboration with experts from professional bodies, universities, and with the providers who will be delivering the qualifications, and with reference to the following frameworks and standards:

- The Framework for Higher Education Qualifications (FHEQ) in England, Wales and Northern Ireland
- QAA benchmark statements for Health Care Programmes: Paramedic Science
- HCPC Standards of Education and Training (SETs) and Standards of Proficiency (SOPs)
- College of Paramedics Curriculum Guidance and Competence Framework
- NHS Knowledge and Skills Framework
- NHS Leadership Framework.

2. Programme purpose and objectives

2.1 Purpose of the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science

The Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Pearson BTEC Level 5 Higher National Diploma in Paramedic Science have been developed in response to direct approaches from NHS Ambulance Trusts for a flexible, robust and blended learning model of study. In particular it has been designed for those who are already employed by Ambulance Trusts as Emergency Care Assistants or Assistant Practitioners (ambulance technicians), enabling them to build on and learn from their experiences in the workplace at the same time as they are studying. To this end the programme has been designed from the start in collaboration with five Ambulance Trusts.

These Higher National qualifications meet the need for the development of academic, professional and digital literacies for potential students who may well have been out of education for a long time. They address the need for leadership and management skills and knowledge development for first line managers, practical care skills for practitioners, and general professional knowledge and skills required in the health and social care sector.

These programmes align with Pearson's ethos that students should graduate with the skills and knowledge needed in the workplace as well as having progression routes to further study. The full Level 5 Higher National Diploma in Paramedic Science has been designed to meet the requirements for paramedic registration with the HCPC and will provide an alternative to existing provision. Successful completion of this programme will allow students to apply for professional registration as a paramedic with the HCPC. Such students will also be eligible to apply for entry with advanced standing to a Bsc (Hons) in Paramedic Science (subject to validation), and will be credited with 120 Level 4 credits and 120 Level 5 credits.

The Level 4 Higher National Certificate in Emergency and Unscheduled Care has been designed to offer enhanced career opportunities within the NHS, and independent and voluntary ambulance organisations. Successful completion will enable students to work at Assistant Practitioner level on the NHS Career Framework.

The programme is designed for students to study while in the workplace and is therefore recommended as a part-time programme only.

2.2 What could these qualifications lead to?

On successful completion of the Level 5 Higher National Diploma in Paramedic Science, the student will have acquired the knowledge, understanding and competency skills in paramedic science to become eligible to apply for HCPC paramedic registration.

'Paramedic' is a protected title, and those wishing to practice as a paramedic must therefore be registered with the HCPC, which regulates healthcare professions in the United Kingdom and was set up to protect the public. Professionals can therefore only be registered with the HCPC if they meet the required national standards for training, professional skills and behaviour. Further information on registering with the HCPC is available on their website: www.hcpc-uk.org/registrants/

2.3 Learning outcomes

Knowledge and understanding

By the end of the programme, students should be able to demonstrate:

K1	Knowledge and understanding of the key terminology, nomenclature, classification systems, conventions and units that are central to paramedic science.
K2	A critical understanding of the life sciences of human growth and development across the lifespan which determine the anatomy and physiology of the human body, and their association with health, disease, disorder, dysfunction and pathology.
K3	A critical understanding of the behavioural sciences that aid understanding of the psychological, social and political factors that influence an individual in health and illness, and incorporate this into paramedic practice.
K4	A systematic understanding of the clinical sciences that underpin effective and safe clinical reasoning, and clinical assessment skills that form the basis of patient assessment and therapeutic interventions that are within the scope of practice as a paramedic.
K5	A thorough knowledge and understanding of the physical sciences that underpin the effective, safe and appropriate use of resources such as equipment and therapeutics in the practice environment.
K6	A critical understanding of the ethical, legal, professional, political and operational framework within which paramedics practice, including the HCPC's standards of conduct, performance and ethics (SCPEs).
K7	A critical understanding of the appropriate methods used to interpret and analyse scientific data and information in defined contexts, and how it contributes to the evidence base that underpins paramedic practice.
K8	A keen awareness of the concepts and principles of Continuing Professional Development (CPD), staff development, leadership, clinical supervision, mentorship and reflective practice as methods and strategies for personal and people development, and in the context of clinical governance.

Intellectual and cognitive skills

By the end of the programme, students should be able to:

C1	Apply knowledge and understanding of essential concepts, principles and theories relating to the paramedic sciences in defined contexts.
C2	Demonstrate a commitment to provide high quality patient-centred care, adopting the ethical codes of paramedic practice.
C3	Critically analyse incidents of practice and solve problems using appropriate guidelines, evidence and experience derived from reflective practice.
C4	Reflect critically on their own performance, practice and professional accountability/self- regulation and be aware of the need to work within the framework set out in the standards of conduct and proficiency for paramedic practice and within the context of patient-centred care.
C5	Evaluate the changing and diverse context of paramedic and ambulance service provision, and participate in the continuation and development of the profession.
C6	Discuss the legal responsibilities and ethical considerations of professional practice, and acknowledge the boundaries of professional competence in a changing healthcare environment.
C7	Identify personal and professional goals for continuing professional development in order to enhance competence to practice and maintain registered professional status.
C8	Synthesise knowledge and evaluate research evidence to support practice in the clinical setting, and recognise the significance of clinical effectiveness in the delivery of paramedic practice.

Professional skills

By the end of the programme, students should be able to:

P1	Assess patients safely and effectively, taking into account physical, psychological and socio-cultural needs.
P2	Construct specific, safe and effective treatment/care plans for patients, keep records accurately, and use problem-solving and clinical reasoning skills.
P3	Appraise available evidence in order to choose and evaluate treatment.
P4	Triage patients and prioritise care, including the use of priority dispatch systems, telephone and face-to-face clinical decision support systems.
P5	Provide foundational levels of mentorship, coaching and guidance of peers and students.

General transferable skills

By the end of the programme, students should be able to:

G1	Communicate effectively, both orally and in writing, with a variety of audiences, including all members of the multi-professional team and across a wide variety of patient groups.
G2	Work effectively within a multi-professional team.
G3	Demonstrate effective leadership, team management, project management and self-management skills, including priority setting (where and when appropriate).
G4	Locate, receive and respond to a variety of information sources (e.g. textual, numerical, graphical and computer-based) in defined contexts.
G5	Utilise a range of study skills to manage their own learning and begin to work independently in a way appropriate for continuing personal and professional development.
G6	Demonstrate skills in analysis and the ability to use methods of enquiry to collect and interpret data in order to provide information that would inform or benefit practice.
G7	Demonstrate strong interpersonal skills, including effective listening and oral communication skills, as well as the associated ability to persuade, present and negotiate.
G8	Work with resilience under pressure, producing set outputs within a definite time-limited period with minimal access to external resources.

3. Planning your programme

3.1 Delivering the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science

You play a central role in helping your students to choose the right BTEC Higher National qualification.

Assess your students very carefully to ensure that they take the right qualification and the right pathways or optional units to allow them to progress to the next stage. You should check the qualification structures and unit combinations carefully when advising students.

You will need to ensure that your students have access to a full range of information, advice and guidance in order to support them in making the necessary qualification and unit choices. When students are recruited, you need to give them accurate information on the title and focus of the qualification for which they are studying.

3.2 Entry requirements and admissions

Admissions criteria

Students will not be permitted to apply to the programme unless they are already employed by an Employer Partner NHS Trust.

The entry requirements have been set to ensure that students undertaking the programme will have the prior knowledge, understanding and skills needed to commence study at Level 4. It is recognised that those working within the Employer Partners, for whom the programme is intended, may not have traditional entry qualifications for university-level study. There is therefore a twin-track approach to recruitment in that applicants must either have two A-levels or the equivalent, or pass an entrance assessment.

Entry requirements

The entry requirements for the Level 5 Higher National Diploma in Paramedic Science are that the applicant must:

- a Fulfil the appointment criteria for operational ambulance support staff member at the provider; and
- b Currently be employed by the Employer Partner NHS Trust as an operational ambulance support staff member; and
- c Either:
 - i Have five GCSEs at grade C or above, including English, and two A-levels or equivalent, and undergo a successful interview; or
 - ii Pass the Entrance Assessment and also undertake and pass the Pearson College study skills unit;

And, in either case:

- d For Candidates whose first language is not English, either:
 - i Hold the IELTS (academic) qualification with an overall score of 7, including a score of 7 in each category;
 - ii Have achieved the Pearson Test of English with an overall score of 66 and a minimum of 66 in all sub-scores.

Occupational Health and Enhanced DBS Checks

In all cases a successful applicant's offer of a place on the programme will be subject to:

- A satisfactory occupational health check demonstrating that they are physically able to perform the range of tasks required in the units; and
- An enhanced Disclosure and Barring Service (DBS) check, or its equivalent in Scotland, Wales or Northern Ireland.

Continuation on the programme will be subject to a satisfactory annual enhanced DBS check to ensure that placements are only undertaken where the student has had such a check within the previous 12 months.

Centre approval

To ensure that centres are ready to assess students and that we can provide the support that is needed, all centres must be approved before they can offer these qualifications. See here for more information about [Becoming a Centre](#), and see here for [Approval to run qualifications](#).

Level of sector knowledge required

We do not set any requirements for tutors, but we do recommend that centres assess the overall skills and knowledge of the teaching team, which should be relevant, up to date and at the appropriate level.

Resources required

As part of your centre approval, you will need to show that the necessary material resources and work spaces are available to deliver BTEC Higher Nationals. For some units, specific resources are required and this is clearly indicated in the unit descriptors.

Modes of delivery

Subject to approval by Pearson, centres are free to deliver BTEC Higher Nationals using modes of delivery that meet the needs of their students. We recommend making use of a wide variety of modes, including:

- Full-time
- Part-time
- Blended learning.

3.3 Access to study

This section focuses on the administrative requirements for delivering a BTEC Higher National qualification. It will be of value to Quality Nominees, Programme Leaders and Examinations Officers.

Our policy regarding access to our qualifications is that:

- They should be available to everyone who is capable of reaching the required standards.
- They should be free from any barriers that restrict access and progression.

There should be equal opportunities for all those wishing to access the qualifications. We refer Centres to our **Pearson Equality policy**.

Centres are required to recruit students to Higher National programmes with integrity. They will need to make sure that applicants have relevant information and advice about the qualification, and to make sure it meets their needs. Centres should review the applicant's prior qualifications and/or experience to consider whether this profile shows that they have the potential to achieve the qualification. For students with disabilities and specific needs, this review will need to take account of the support available to the student during the teaching and assessment of the qualification. For further guidance and advice please refer to Section 9 on reasonable adjustments.

3.4 Student registration and entry

Within 30 days (home students) and 60 days (international students) of enrolment all students should be registered for the qualification, and appropriate arrangements made for internal and external verification. You will need to refer to the **BTEC Qualifications Information Manual** for information on making registrations for the qualification.

Students can only be formally assessed for a qualification on which they are registered. If students' intended qualifications change (for example, if a student decides to choose a different specialist pathway), then the centre must transfer the student to the chosen pathway appropriately. Please note that student work cannot be sampled if the student is not registered or is registered on an incorrect pathway.

3.5 Access to assessments

Assessments need to be administered carefully to ensure that all students are treated fairly and that results and certification are issued on time, allowing students to move on to chosen progression opportunities.

Our **equality and diversity policy** requires that all students should have equal opportunity to access our qualifications and assessments, and that our qualifications are awarded in a way that is fair to every student. We are committed to making sure that:

- Students with a protected characteristic (as defined by the Equality Act, 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to students who do not share that characteristic.

- All students achieve the recognition they deserve for undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

Further information on access arrangements can be found at [Joint Council for Qualifications \(JCQ\)](#).

3.6 Administrative arrangements for internal assessment

Records

You are required to retain records of assessment for each student. Records should include assessments taken, decisions reached and any adjustments or appeals. Further information can be found in the [BTEC Centre Guide to Assessment \(Levels 4–7\)](#). We may ask to audit your records, so they must be retained as specified. All student work must be retained for **a minimum of 12 weeks** after certification has taken place.

Reasonable adjustments to assessment

A reasonable adjustment is one that is made before a student takes an assessment, to ensure that he or she has fair access to demonstrate the requirements of the assessments.

You are able to make adjustments to internal assessments to take account of the needs of individual students. In most cases this can be achieved through a defined time extension or by adjusting the format of evidence. We can provide advice if you are uncertain as to whether an adjustment is fair and reasonable. You need to plan for time to make adjustments, if necessary.

Further details on how to make adjustments for students with protected characteristics are available on our website: [Supplementary Guidance for Reasonable Adjustment](#).

Special consideration

Special consideration is given after an assessment has taken place for students who have been affected by adverse circumstances, such as illness, and require an adjustment of grade to reflect normal level of attainment. You must operate special consideration in line with Pearson policy (see previous paragraph). You can provide special consideration related to the period of time given for evidence to be provided, or for the format of the assessment (if it is equally valid). You may not substitute alternative forms of evidence to that required in a unit, or omit the application of any assessment criteria to judge attainment. Pearson can consider applications for special consideration in line with the policy, which can be found in the document linked above.

Please note that your centre must have a policy for dealing with mitigating circumstances if students are affected by adverse circumstances, such as illness, which result in non-submission or late submission of assessment.

Appeals against assessment

Your centre must have a policy for dealing with appeals from students. These appeals may relate to assessment decisions being incorrect or assessment not being conducted fairly. The first step in such a policy could be a consideration of the evidence by a Programme Leader or other member of the programme team. The assessment plan should allow time for potential appeals after assessment decisions have been given to students. If there is an appeal by a student, you must document the appeal and its resolution. Students have a final right of appeal to Pearson, but only if the procedures that you have put in place have not been followed. Further details are given in our policy here: [Enquiries and Appeals on Pearson Vocational Qualifications](#).

If your centre is located in England or Wales and you are still dissatisfied with the final outcome of your appeal, you can make a further appeal to the Office of the Independent Adjudicator (OIA) by emailing: <mailto:enquiries@oiahe.org.uk>.

3.7 Dealing with malpractice in assessment

'Malpractice' means acts that undermine the integrity and validity of assessment, the certification of qualifications, and/or acts that may damage the authority of those responsible for delivering the assessment and certification. Malpractice may arise, or be suspected, in relation to any unit or type of assessment within the qualification.

Pearson does not tolerate actions (or attempted actions) of malpractice by students, centre staff or centres in connection with Pearson qualifications. Pearson may impose penalties and/or sanctions on students, centre staff or centres where incidents (or attempted incidents) of malpractice have been proven.

For further details regarding malpractice and advice on preventing malpractice by students, please see Pearson's [Centre Guidance: Dealing with Malpractice](#).

In the interests of students and centre staff, centres need to respond effectively and openly to all requests relating to an investigation into an incident of suspected malpractice. The procedures we ask you to adopt when tackling malpractice vary between units that are internally assessed and those that are externally assessed.

Internally assessed units

Centres are required to take steps to prevent malpractice and to investigate instances of suspected malpractice. Students must be given information that explains what malpractice is for internal assessment and how suspected incidents will be dealt with by the centre. The aforementioned document [Centre Guidance: Dealing with Malpractice](#) gives full information on the actions we expect you to take.

Pearson may conduct investigations if it is believed that a centre is failing to conduct internal assessment according to Pearson policies. The above document gives further information, provides examples, and details the penalties and sanctions that may be imposed.

Student malpractice

Heads of centres are required to report incidents of any suspected student malpractice that occur during Pearson external assessments. We ask that centres do so by completing **JCQ Form M1** and emailing it, along with any accompanying documents (signed statements from the student, invigilator, copies of evidence, etc.) to the Investigations Team at pqsmalpractice@pearson.com. The responsibility for determining appropriate sanctions or penalties to be imposed on students lies with Pearson.

Students must be informed at the earliest opportunity of the specific allegation and the centre's malpractice policy, including the right of appeal. Students found guilty of malpractice may be disqualified from the qualification for which they have been entered with Pearson.

Tutor/centre malpractice

Heads of centres are required to inform Pearson's Investigations Team of any incident of suspected malpractice by centre staff, before any investigation is undertaken. Heads of centres are requested to inform the Investigations Team by submitting a **JCQ Form M2** with supporting documentation to pqsmalpractice@pearson.com. Where Pearson receives allegations of malpractice from other sources (for example, Pearson staff or anonymous informants), the Investigations Team will conduct the investigation directly or may ask the head of centre to assist.

Incidents of maladministration (accidental errors in the delivery of Pearson qualifications that may affect the assessment of students) should also be reported to the Investigations Team using the same method.

Heads of centres/Principals/Chief Executive Officers or their nominees are required to inform students and centre staff suspected of malpractice of their responsibilities and rights; see 6.15 of *JCQ Suspected Malpractice in Examinations and Assessments Policies and Procedures* (www.jcq.org.uk).

Pearson reserves the right in cases of suspected malpractice to withhold the issue of results and/or certificates while an investigation is in progress. Depending on the outcome of the investigation, results and/or certificates may be released or withheld. We reserve the right to withhold certification when undertaking investigations, audits and quality assurances processes. You will be notified within a reasonable period of time if this occurs.

Sanctions and appeals

Wherever malpractice is proven, we may impose sanctions or penalties. Where student malpractice is evidenced, penalties may be imposed such as:

- Disqualification from the qualification
- Being barred from registration for Pearson qualifications for a specified period of time.

If we are concerned about your centre's quality procedures, we may impose sanctions such as:

- Working with you to create an improvement action plan
- Requiring staff members to receive further training
- Placing temporary blocks on your certificates

- Placing temporary blocks on registrations of students
- Debarring staff members or the centre from delivering Pearson qualifications
- Suspending or withdrawing centre approval status.

Your centre will be notified if any of these apply.

Pearson has established procedures for centres that are considering appeals against penalties and sanctions arising from malpractice. Appeals against a decision made by Pearson will normally be accepted only from heads of centres (on behalf of students and/or members or staff) and from individual members (in respect of a decision taken against them personally). Further information on appeals can be found in our [Enquiries and Appeals Policy](#).

In the initial stage of any aspect of malpractice, please notify the Investigations Team by email (pqsmalpractice@pearson.com), who will inform you of the next steps.

4. Programme structure

4.1 Units, credits, Total Qualification Time (TQT) and Guided Learning (GL)

The Higher National Certificate (HNC) is a Level 4 qualification made up of 120 credits.

The Higher National Diploma (HND) is a Level 4 and Level 5 qualification made up of 240 credits.

All units are usually 15 credits in value, or a multiple thereof. These units have been designed from a learning time perspective, and are expressed in terms of **Total Qualification Time (TQT)**. TQT is an estimate of the total amount of time that could reasonably be expected to be required for a student to achieve and demonstrate the achievement of the level of attainment necessary for the award of a qualification. TQT includes undertaking each of the activities of Guided Learning, Directed Learning and Invigilated Assessment. Each 15-credit unit approximates to a Total Unit Time of 150 hours and 60 hours of Guided Learning.

Total Qualification Time (TQT) Higher National Certificate (HNC) = 1,200

Total Qualification Time (TQT) Higher National Diploma (HND) = 2,400

Examples of activities which can contribute to Total Qualification Time include:

- Guided Learning
- Independent and unsupervised research/learning
- Unsupervised compilation of a portfolio of work experience
- Unsupervised e-learning
- Unsupervised e-assessment
- Unsupervised coursework
- Watching a pre-recorded podcast or webinar
- Unsupervised work-based learning.

Guided Learning (GL) is defined as the time when a tutor is present to give specific guidance towards the learning aim being studied on a programme. This definition includes lectures, tutorials and supervised study in, for example, open learning centres and learning workshops. Guided Learning includes any supervised assessment activity; this includes invigilated examination and observed assessment and observed work-based practice.

Total Guided Learning (GL) Higher National Certificate (HNC) = 480 hours

Total Guided Learning (GL) Higher National Diploma (HND) = 960 hours

Some examples of activities which can contribute to Guided Learning include:

- Classroom-based learning supervised by a tutor
- Work-based learning supervised by a tutor
- Live webinar or telephone tutorial with a tutor in real time
- E-learning supervised by a tutor in real time
- All forms of assessment which take place under the immediate guidance or supervision of a tutor or other appropriate provider of education or training, including where the assessment is competence-based and may be turned into a learning opportunity.

4.2 Programme structures

The programme structures specify:

- the total credit value of the qualification;
- the minimum credit to be achieved at the level of the qualification;
- the units.

When combining units for a Pearson Higher National qualification, it is the centre's responsibility to make sure that the correct combinations are followed.

Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care

- 1 Qualification credit value: a minimum of 120 credits. This is made up of five units, each with a value of either 15 or 30 credits.
- 2 All units are at Level 4.
- 3 All units are mandatory.

Unit number	Unit title	Unit credit	Unit level	When studied
2	Foundations of Paramedic Practice	30	4	Terms 1 and 2
3	Foundations of Life Sciences	15	4	Terms 1 and 2
4	Foundations of Emergency and Unscheduled Trauma Care	30	4	Term 3
5	Contemporary Issues in Healthcare	15	4	Term 4
1	Clinical Practice Placement	30	4	Blocks at the end of Terms 1, 2 and 3, plus the whole of Term 4

Pearson BTEC Level 5 Higher National Diploma in Paramedic Science

The Level 5 Higher National Diploma consists of the Level 4 Higher National Certificate (above) **plus** an additional 120 credits at Level 5 (see table below).

- 1 Qualification credit value: a minimum of 240 credits. This is made up of 11 units, each with a value of either 15 or 30 credits.
- 2 120 credits (six units) are at Level 5, and 120 credits (five units) are at Level 4 and usually attained via the Higher National Certificate in Emergency and Unscheduled Care.
- 3 All units are mandatory.

Unit number	Unit title	Unit credit	Unit level	When studied
7	Developing Paramedic Practice	30	5	Term 5
8	Pre-Hospital Paediatric Management	15	5	Term 6
9	Pre-Hospital Management of Obstetric and Neonatal Patients	15	5	Term 6
10	Pre-hospital Trauma Management	15	5	Term 7
11	Evidence-based Practice	15	5	Terms 7 and 8
6	Paramedic Practice Placement	30	5	Blocks at the end of Terms 5, 6 and 7, plus the whole of Term 8

A matrix mapping the units against the learning outcomes for the programme can be found in *Appendix 1*.

Study skills unit

A study skills unit is delivered as a preparatory unit in the term before the programme commences. This unit is open to all students who will be commencing the programme the following term and is compulsory for all those who do not have at least five GCSEs at grade C or above, including English, and two A-levels (see the section on Entry requirements on page 13).

5. Teaching and learning

The aim of this section is to provide guidance to centres so they can engage students in a dynamic, interactive and reflective learning experience. This experience should effectively prepare students to successfully engage in the assessments, which will measure depth, as well as breadth, of knowledge. Teaching should stimulate academic engagement, develop challenging yet constructive discourse and encourage students to reflect on their own performance in preparation for a professional career. Additionally, centres are encouraged to expose students to autonomous and independent learning, which will facilitate the development of the academic skills, experiences and techniques required as they progress from one level of study to the next.

Centres are encouraged to develop programmes that have a distinctive focus on entry into work; delivering a curriculum that embeds employability, has a strong commitment to ethics and diversity, and introduces students to contemporary as well as seminal research. All teaching and learning should reflect the expectations of employers and society, and be informed and guided by external benchmarks such as professional and statutory bodies. In so doing students completing the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science will have the attributes, skills, principles and behaviours that will enable them to make a valuable contribution whether locally, nationally or internationally.

The contributions students make to their own experiences, alongside the experience of their peers, is invaluable. Student engagement and the student voice should form a significant aspect of a student's life. Centres are encouraged to gather student opinions on a range of teaching and learning matters, which would be used to inform and enhance future practice within a programme of study and within a centre.

5.1 Components of delivery

The qualifications covered in this specification use a blended learning method of delivery with three key components:

- 1 Online learning** via an online learning environment (OLE), through which students gain an understanding of the underpinning knowledge needed for a career as a paramedic. The learning activities include lectures, online tutorials and independent study exercises.
- 2 Clinical skills workshops** delivered by clinical tutors to enhance knowledge and understanding of skills acquired during online study, to ensure that the student is adequately prepared to practice their skills with patients under clinical mentor supervision.
- 3 Clinical placements** facilitated by Employer Partners that enable a safe and supportive learning environment for students to practice, consolidate and acquire the competence in clinical skills in preparation for HCPC registration on completion of the Level 5 Higher National Diploma in Paramedic Science.

5.2 Delivering quality and depth

A high quality teaching and learning experience should include qualified and experienced lecturers, an interactive and engaging curriculum, motivated and inspired students, and a support system that caters for the pastoral as well as academic interests of students.

In addition to delivering a quality learning experience, centres must also encourage students to have a deeper understanding of the subject where they are able to go beyond the fundamentals of explaining and describing. Students are expected to show they can analyse data and information, make sense of this and then reach evaluative judgements. At the higher levels of study there is an expectation that students will be able to apply a degree of criticality to their synthesis of knowledge. This criticality would come from exposure to appropriate and relevant theories, concepts and models.

One of the reasons for delivering a quality learning experience, which has depth as well as breadth, is the benchmarking of the qualification to the Framework for Higher Education Qualifications (FHEQ). It also meets requirements set by the Regulated Qualifications Framework (RQF). The first stage of a Level 5 Higher National Diploma (HND) in Paramedic Science is the Level 4 Higher National Certificate (HNC) in Emergency and Unscheduled Care, which is aligned with Level 4 of both frameworks; the Higher National Diploma is aligned with Level 5. This means that the HNC has the same level of demand and expectations as the first year of a degree programme, with the HND having the same level of demand and expectations as the second year of a degree programme.

Centres are expected to provide a broadly similar experience for students to that which they would have if they attended a similar programme at a university. This could mean:

- Providing access to library facilities which has, as a minimum, available copies (physically and/or electronically) of all required reading material
- Access to research papers and journals
- Utilising a virtual learning environment (VLE) to support teaching
- Working with local employers (see below) to present real-life case studies
- Creating schemes of work that embrace a range of teaching and learning techniques
- Listening to the student voice.

Irrespective of the type of programme on which a student is enrolled, it is highly advisable that students are inducted on to their Higher National programme. This induction should include an introduction to the course programme and academic study skills that will be essential in supporting their research and studies, and, therefore, to enhance the learning experience.

An induction programme should consist of the following:

- Course programme overview
- Preparing for lessons
- Effective engagement in lectures and seminars
- Making the most out of their tutor
- Assignment requirements

- Referencing and plagiarism
- Centre policies
- Academic study skills.

5.3 Engaging with employers

Just as the student voice is important, so too is the employer's. Employers play a significant role in the design, development and delivery of the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science. Students on these programmes will be in employment and therefore directly exposed to employer and professional practice.

5.4 Engaging with students

Students are integral to teaching and learning. As such, it is important that they are involved as much as possible with most aspects of the programme on to which they are enrolled. This input could include taking into account their views on how teaching and learning will take place, their role in helping to design a curriculum, or on the assessment strategy that will test their knowledge and understanding.

There are many ways in which to capture the student voice and student feedback, both formal and informal. Formal mechanisms include the nomination of student representatives to act as the collective student voice for each student cohort, student representation at course team meetings, and an elected higher education representative as part of the Student Union. Student forums should also take place periodically throughout the year with minutes and action plans updated and informing the overall annual course monitoring process. Unit-specific feedback can also be collated by students completing unit feedback forms, end of year course evaluations and scheduled performance review meetings with their tutor.

However, this should not be the only time when feedback from students is sought. Discourse with students should be constant, whereby teachers adopt a 'reflection on action' approach to adjust teaching, so that students are presented with an environment that is most supportive of their learning styles. Just as employers could have an input into assessment design, so too could students. This will support the development of assignments that are exciting and dynamic, and fully engage students in meaningful and informative assessment.

The biggest advantage of consulting students on their teaching, learning and assessment is securing their engagement in their own learning. Students are likely to feel empowered and develop a sense of ownership of all matters related to teaching, learning and assessment, not just their own experiences. Students could also view themselves as more accountable to their lecturers, ideally seeing themselves as partners in their own learning and not just part of a process.

5.5 Planning and structuring of the programme

Learning should be challenging yet exciting; teaching should be motivating and inspirational. Consequently, both teaching and learning should form part of a programme structure that has been designed to be active, flexible and progressive, and has an industry focus.

In planning the structure of the programme the nature of the student cohort has been taken into account, together with the mode of delivery (blended learning) and the level of study. These factors have all been taken into account when planning:

- The sequencing of units
- Whether to have condensed or expanded delivery
- Teaching and learning techniques.

The importance of the student voice (both through end of programme feedback, and through ongoing dialogue) has also been considered together with mechanisms for capturing both tutor and employer feedback.

5.4.1 Sequencing units

The level of demand embedded within a unit is benchmarked to recognised standards. This applies to all the units within each level of study, and this means that all Level 4 units have similar demands, as do all Level 5 units. However, this does not mean that units can, or should, be delivered in any order. Within each level, units have been sequenced so that those providing fundamental knowledge and understanding are scheduled early in the programme.

5.4.3 Drawing on a wide range of delivery techniques

As part of planning, the range of techniques that will be used to deliver the syllabus has been designed to ensure that there is an appropriate combination of techniques for the subject and that each of the techniques is appropriate to the learning outcomes to be achieved.

The table below lists some of the techniques that will be employed.

Technique	Face-to-face	Distance learning
Lectures and seminars	These offer an opportunity to engage with a large number of students, where the focus is on sharing knowledge through the use of presentations.	Delivery is through live and/or pre-recorded audio and/or visual material, available through an online platform. Synchronous discussion forums will also be used.
Workshops	These are used to build on knowledge shared via tutors and seminars. Teaching can be more in-depth where knowledge is applied, for example to case studies or real-life examples. Workshops could be student-led, where students present, for example, findings from independent study.	Smaller groups of three or four students could access a forum simultaneously and engage in the same type of activity as for face-to-face. In these programmes, however, due to the nature of the subject matter, the workshops are all planned as face-to-face.
Tutorials	These present an opportunity for focused one-to-one support, where teaching is led by an individual student's requirements. These can be most effective in the run-up to assessment, where tutors can provide more focused direction, perhaps based on a formative assessment.	Other than not necessarily being in the same room as a student, tutors can still provide effective tutorials. Video conferencing tools provide the means to see a student, which makes any conversation more personal.
Virtual Learning Environments (VLEs)	These are even invaluable to students studying on the face-to-face component of the programme. Used effectively, VLEs not only provide a repository for taught material such as presentation slides or handouts, but will be used to set formative tasks such as quizzes. Further reading will also be located on the VLE, along with a copy of the programme documents, such as the handbook and assessment timetable.	A VLE is an essential component of the programme as it is a blended learning delivery model and this is a key source of learning.

Technique	Face-to-face	Distance learning
Work-based learning/placements	This is an integral part of the programme as it adds realism and provides students with an opportunity to link theory to practice in a way in which case studies do not.	

5.4.4 Assessment considerations

Assessments must be designed for learning. The assessment strategy requires students to engage with a variety of assessment tools that are accessible, appropriately challenging, and support the development of student self-efficacy and self-confidence. To ensure that assignments are valid and reliable, robust quality assurance measures are in place, and the effectiveness of their implementation will be monitored (see section 6 of this Programme Specification). This includes ensuring that all students engage in assessment positively and honestly.

Assessment also provides a learning opportunity for all stakeholders of the assessment to have access to feedback that is both individual to each student and holistic to the cohort. Feedback to students should be supportive and constructive. Student self-efficacy (and therefore self-confidence) can be significantly enhanced where feedback not only focuses on areas for improvement but recognises the strengths a student has. At the cohort level, similar trends will be identified to inform future approaches to assessments and teaching. Assessment is an integral part of the overall learning process and assessment strategy has been developed to support effective, reflective, thinking practitioners for the future. Assessment can be either formative, summative or both.

5.4.5 Formative assessment

Formative assessment is primarily developmental in nature and designed to give feedback to students on their performance and progress. Assessment designed formatively should develop and consolidate knowledge, understanding, skills and competencies. It is a key part of the learning process and can enhance learning and contribute to raising standards.

Through formative assessment tutors can identify students' differing learning needs early on in the programme and so make timely corrective interventions. Tutors can also reflect on the results of formative assessment to measure how effective the planned teaching and learning is at delivering the syllabus. Each student should receive one set of written formative feedback, otherwise some students may feel that others are being given more than their share of verbal feedback.

5.4.6 Summative assessment

Summative assessment is where students are provided with the assignment grades contributing towards the overall unit grade. For summative assessment to be effective it should also give students additional formative feedback to support ongoing development and improvement in subsequent assignments. All formative assessment feeds directly into the summative assessment for each unit and lays the foundations from which students develop the necessary knowledge and skills required for the summative assessment.

5.4.7 Assessment feedback

Effective assessment feedback is part of continuous guided learning which promotes learning and enables improvement. It also allows students to reflect on their performance and helps them understand how to make effective use of feedback. Constructive and useful feedback should enable students to understand the strengths and limitations of their performance, providing positive comments where possible as well as explicit comments on how improvements can be made. Feedback should reflect the learning outcomes and marking criteria to also help students understand how these inform the process of judging the overall grade.

The timing of the provision of feedback and of the returned assessed work also contributes to making feedback effective. Specific turnaround time for feedback will be agreed and communicated with both tutors and students. Timing will be designed to allow students the opportunity to reflect on the feedback and consider how to make use of it in forthcoming assessments, taking into account the tutor's workload and ability to provide effective feedback.

5.4.8 Designing valid and reliable assessments

To help ensure valid and reliable assignments are designed and are consistent across all units, a number of actions will be considered.

Use of language

The language of assessments must make tasks/questions more accessible to students.

Due consideration must be given to the command verbs (i.e. the verbs used in unit assessment criteria) when considering the learning outcomes of a unit. Assignments must use appropriate command verbs that equate to the demand of the learning outcome.

Consistency

This relates to the consistency of presentation and structure, the consistent use of appropriate assessment language, and the consistent application of grading criteria. Where assignments are consistent, reliability is enhanced. Where validity is present in assignments this will result in assignments that are fit for purpose and provide a fair and equitable opportunity for all students to engage with the assignment requirements.

Employing a range of assessment tools

Just as variation in teaching methods used was important to the planning of the programme structure, so too was the use of a range of assessment tools appropriate to the unit and its content. The assessment strategy was designed to ensure a balanced assessment approach with consideration given to the subject being tested and what is in the best interests of students. Consultation with employers has also added a sense of realism to the assessment strategy.

No matter what tool is used, assignments should have a sector focus (whether this is in a workplace context or through a case study), and be explicitly clear in its instructions. In the absence of a case study a scenario should be used to provide some context. Finally, students should be clear on the purpose of the assignment and which elements of the unit it is targeting.

6. Assessment

6.1 Assessment of the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science

The assessment strategy for the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science is designed to ensure that students successfully completing the programme have demonstrated achievement of the Learning Outcomes. Students are exposed to a range of assessment methods to allow them to demonstrate their knowledge, understanding and skills in a number of different contexts and applications. Coursework is designed to facilitate the development of in-depth knowledge and understanding, and to cover a wide selection of skills, including self-reflection, and how these can be applied to the workplace.

There are two elements that the assessment strategy is assessing: clinical competence and academic competence.

Appendix 2 shows the learning, teaching and assessment strategy mapped against the learning outcomes for the Level 5 Higher National Diploma in Paramedic Science.

Assessing clinical competence

All units covering clinical outcomes contain an Objective Structured Clinical Examination (OSCE), which in itself does not carry with it any academic credit but is an essential component of the assessment process and carries with it a pass/fail mark. These are mapped to the Standards of Proficiency (SOPs) as set out by the HCPC.

Students **must** pass this element of the assessment to pass the qualification overall – they carry no academic compensation.

Assessment of practice is in the form of a Professional Development Portfolio (PDP), which contains a Clinical Practice Skills Record (CPSR) mapped against the HCPC Standards of Proficiency and College of Paramedics Curriculum Guidance 2013 at Level 4 and Level 5, and a reflective account on clinical practice. These assessments are located in Unit 1: Clinical Practice Placement (at Level 4) and Unit 6: Paramedic Practice Placement (at Level 5) and are ongoing pieces of work throughout the academic level. The reflective portfolios for these units, together with the reflective case study assessment of Unit 10: Pre-Hospital Trauma Management, is specifically designed to enable students to develop autonomous and reflective thinking and to assess their ability to do this.

Assessing academic competence

Assessment of academic competence is largely via written work and via examinations (with some use of presentations).

Written work is marked using the grading criteria set out in *Appendix 3*. Examination papers are set each year with the involvement of the Pearson External Examiner for the programmes.

Assessment instruments are designed to encourage the interplay of theory and practice, and require a demonstration of application of knowledge to the workplace.

The written pieces of work are designed to develop the student's writing, presentation and academic skills (and to allow the student to progress through Levels 4 and 5); the title of the work will, however, reflect an application of the theories in the workplace.

6.2 Principles of internal assessment

This section gives an overview of the key features of internal assessment and how you, as an approved centre, can offer it effectively. The full requirements and operational information are given in the **Pearson Quality Handbook**. All the assessment team will need to refer to this document.

For BTEC Higher Nationals it is important that you can meet the expectations of stakeholders and the needs of students by providing a programme that is practical and applied. Centres can tailor programmes to meet local needs and should use links with local employers and the wider sector.

When internal assessment is operated effectively it is challenging, engaging, practical and up to date. It must also be fair to all students and meet national standards.

The award of a Pass is a defined level of performance and cannot be given solely on the basis of a student completing assignments. Students who do not satisfy the Pass criteria should be reported as Unclassified.

The assessment team

It is important that there is an effective team for internal assessment. There are three key roles involved in implementing assessment processes in your centre, each with different interrelated responsibilities, and these roles are listed below. Full information is given in the **Pearson Quality Handbook**.

- **The Programme Leader** has overall responsibility for the programme, its assessment and internal verification to meet our requirements, record keeping and liaison with the Standards Verifier. The Programme Leader registers with Pearson annually and acts as an assessor, supports the rest of the assessment team, makes sure they have the information they need about our assessment requirements, and organises training, making use of our guidance and support materials.
- **Internal Verifiers (IVs)** oversee all assessment activity in consultation with the Programme Leader. They check that assignments and assessment decisions are valid and that they meet our requirements. IVs will be standardised by working with the Programme Leader. Normally, IVs are also assessors, but they do not verify their own assessments.
- **Assessors** set or use assignments to assess students to national standards. Before taking any assessment decisions, assessors participate in standardisation activities led by the Programme Leader. They work with the Programme Leader and IVs to ensure that the assessment is planned and carried out in line with our requirements.
- Your **External Examiner (EE)** will sample student work across assessors. Your EE will also want to see evidence of informal verification of assignments and assess decisions.

Effective organisation

Internal assessment needs to be well organised so that student progress can be tracked and so that we can monitor that assessment is being carried out in line with national standards. We support you in this through, for example, providing training materials and sample documentation. Our online HN Global service can also help support you in planning and record keeping.

It is particularly important that you manage the overall assignment programme and deadlines to make sure that all your students are able to complete assignments on time.

Student preparation

To ensure that you provide effective assessment for your students, you need to make sure that they understand their responsibilities for assessment and the centre's arrangements. From induction onwards you will want to ensure that students are motivated to work consistently and independently to achieve the requirements of the qualifications. They need to understand how assignments are used, the importance of meeting assignment deadlines, and that all the work submitted for assessment must be their own.

You will need to give your students a guide that explains:

- how assignments are used for assessment;
- how assignments relate to the teaching programme;
- how students should use and reference source materials, including what would constitute plagiarism.

The guide should also set out your centre's approach to operating assessment, such as how students must submit assignments/work and the consequences of submitting late work and the procedure for requesting extensions for mitigating circumstances.

6.3 Making valid assessment decisions

Authenticity of student work

An assessor must assess only student work that is authentic, i.e. the student's own independent work. Students must authenticate the evidence that they provide for assessment through signing a declaration stating that it is their own work. A student declaration must state that:

- Evidence submitted for the assignment is the student's own
- The student understands that false declaration is a form of malpractice.

Assessors must ensure that evidence is authentic to a student through setting valid assignments and supervising them during the assessment period. Assessors must also take care not to provide direct input, instructions or specific feedback that may compromise authenticity.

Centres may use Pearson templates or their own templates to document authentication.

During assessment an assessor may suspect that some or all of the evidence from a student is not authentic. The assessor must then take appropriate action using the centre's policies for malpractice. (See section 3.7 in this Programme Specification for further information.)

Dealing with late completion of assignments

Students must have a clear understanding of the centre's policy on completing assignments by the deadlines that you give them. Students may be given authorised extensions for legitimate reasons, such as illness, at the time of submission, in line with your centre policies (and please also refer to section 3.6 in this Programme Specification).

For assessment to be fair, it is important that students are all assessed in the same way and that some students are not advantaged by having additional time or the opportunity to learn from others. Therefore, it may be advisable that students who do not complete assignments by your planned deadline should not have the opportunity to subsequently resubmit. Centres should develop and publish their own regulations on late submission. However, if you accept a late completion by a student, then the assignment should be assessed normally when it is submitted, using the relevant assessment criteria.

Issuing assessment decisions and feedback

Once the assessment team has completed the assessment process for an assignment, the outcome is a formal assessment decision. This is recorded formally and reported to students. The information given to the student:

- Must show the formal decision and how it has been reached, indicating how or where criteria have been met
- May show why attainment against criteria has not been demonstrated
- Must not provide feedback on how to improve evidence but how to improve in the future.

Reassessment of failed assessment(s)

An assignment provides the final assessment for the relevant learning outcomes and is normally a final assessment decision. A student who fails one or more units shall be permitted two further attempts at the assessments for that unit. These further attempts are known as resits.

- Where a unit has more than one assessment component, the student will only be permitted to re-sit the assessment components which they have failed. The actual mark gained in that resit will then be used, together with the marks gained in the previously passed assessment component(s) for that unit, to calculate whether the student has gained an overall mark of 40% and therefore passed the unit.
- Where a student resits and passes a unit, the mark for any resat component shall be capped at the pass mark. The marks gained in any previously passed component(s) of the assessment will then be used together with the capped marks of resat component(s) to calculate the overall mark for the unit.

Assessment Boards

Each centre is expected by Pearson to hold Assessment Boards for all of its BTEC Higher National programmes. The main purpose of an Assessment Board is to make recommendations on:

- The grades achieved by students on the individual units
- Extenuating circumstances
- Cases of cheating and plagiarism
- Progression of students on to the next stage of the programme
- The awards to be made to students
- Referrals and deferrals.

Assessment Boards may also monitor academic standards. The main boards are normally held at the end of the session, although if your centre operates on a semester system there may be (intermediate) boards at the end of the first semester. There may also be separate boards to deal with referrals.

Where a centre does not currently have such a process then the External Examiner (EE) should discuss this with the Quality Nominee and Programme Leader, stressing the requirement for Assessment Boards by both Pearson and QAA and that Assessment Board reports and minutes provide valuable evidence for QAA's Review of College Higher Education process

6.4 Planning and record keeping

For internal processes to be effective, an assessment team needs to be well organised and keep effective records. The centre will also work closely with us so that we can quality assure that national standards are being satisfied. This process gives stakeholders confidence in the assessment approach.

The Programme Leader must have an assessment plan, produced as a spreadsheet. When producing a plan the assessment team will wish to consider:

- The time required for training and standardisation of the assessment team.
- The time available to undertake teaching and carrying out of assessment, taking account of when students may complete external assessments and when quality assurance will take place.
- The completion dates for different assignments.
- Who is acting as Internal Verifier (IV) for each assignment and the date by which the assignment needs to be verified.
- Setting an approach to sampling assessor decisions though internal verification that covers all assignments, assessors and a range of students.
- How to manage the assessment and verification of students' work, so that they can be given formal decisions promptly.
- How resubmission opportunities can be scheduled.

The Programme Leader will also maintain records of assessment undertaken. The key records are:

- Verification of assignment briefs
- Student authentication declarations
- Assessor decisions on assignments, with feedback given to students
- Verification of assessment decisions.

Examples of records and further information are available here, in the [Pearson Quality Handbook](#).

6.5 Conditions for the Award of the Level 4 Higher National Certificate in Emergency and Unscheduled Care and the Level 5 Higher National Diploma in Paramedic Science

Requirements for Award of Level 4 Higher National Certificate in Emergency and Unscheduled Care or Level 5 Higher National Diploma in Paramedic Science and classification of the Award

In order to be awarded the Level 4 Higher National Certificate in Emergency and Unscheduled Care or the Level 5 Higher National Diploma in Paramedic Science, students must satisfactorily complete the programme. Those who successfully complete the HND or HNC will be awarded one of the following classifications in conformity with the programme regulations:

- Pass
- Merit
- Distinction.

The criteria for achievement of an overall Pass, Merit or Distinction grade in the Level 5 Higher National Diploma in Paramedic Science and the Level 4 Higher National Certificate in Emergency and Unscheduled Care is given below.

Pearson BTEC Level 5 Higher National Diploma in Paramedic Science

Grade	Criteria
Distinction	A student will be awarded a Distinction where they have fulfilled the conditions for the award of an HND and either: <ul style="list-style-type: none"> i their overall percentage mark is 70% or higher; or ii their average percentage mark is no less than 65%; and a mark of at least 70% has been achieved in units which collectively amount to at least 120 credits.
Merit	A student will be awarded a Merit where they have fulfilled the conditions for the award of an HND and either: <ul style="list-style-type: none"> i their overall percentage mark is 60% or higher; or ii their average percentage mark is no less than 55%; and a mark of at least 60% has been achieved in units which collectively amount to at least 120 credits.
Pass	A student will be awarded a Pass where they have fulfilled the conditions for the award of an HND.

Conditions for the Award of the HND

Students will be awarded a HND where they have:

- completed the approved programme of units amounting to at least 240 credits
- obtained a mark of at least 40% for each unit including, where the unit contains a competency-based component, a pass in that component (subject to compensation provisions).

Pearson BTEC Level 4 Higher National Certificate in Emergency and Unscheduled Care

Grade	Criteria
Distinction	A student will be awarded a Distinction where they have fulfilled the conditions for the award of an HNC and either: <ol style="list-style-type: none"> i their overall percentage mark is 70% or higher; or ii their average percentage mark is no less than 65%; and a mark of at least 70% has been achieved in units which collectively amount to at least 60 credits
Merit	A student will be awarded a Merit where they have fulfilled the conditions for the award of an HNC and either: <ol style="list-style-type: none"> i their overall percentage mark is 60% or higher; or ii their average percentage mark is no less than 55%; and a mark of at least 60% has been achieved in units which collectively amount to at least 60 credits
Pass	A student will be awarded a Pass where they have fulfilled the conditions for the award of an HNC.

Conditions for the Award of HNC

Students will be awarded a HNC where they have:

- completed the approved programme of units amounting to at least 120 credits
- obtained a mark of at least 40% for each unit including and, where the unit contains a competency-based component, a pass in that component (subject to compensation provisions).

Progression from HNC to HND

A student is not permitted to progress to the HND until they have completed the requirements for the award of the HNC.

Compensation Provisions

Compensation Provisions for the HND

A student can still be awarded an HND if they have obtained a mark below 40% in one of the 15 credit units at Level 4 and one of the 15 credit units at Level 5 but they have otherwise fulfilled all the above conditions.

Compensation Provisions for the HNC

A student can still be awarded an HNC if they have obtained a mark below 40% in one of the 15 credit units at Level 4.

Compensation Provisions Relating to both HNC and HND

The student must obtain at least 35% in the unit(s) for which their mark is below 40%; and then must pass all competency-based elements of all units; and obtain an overall percentage mark of 40%.

Calculation of Overall Percentage Mark

Calculation of Overall Percentage Mark for the HND

1. Percentage Mark

Percentage marks will be calculated according to the credit weighting of the units undertaken, excluding any units from which a candidate has been exempt through the RPL procedure. Where a unit is excluded from the calculation for the reason given above, it will be given a weight of 0 in calculating the overall mark.

2. Overall Percentage Mark

The student's overall percentage marks are calculated according to the following weightings:

- Percentage mark for HNC: a weight of 1;
- Percentage mark for HND: a weight of 2.

3. Rounding of marks

Marks for units will be calculated to two decimal points. This is the underlying unit mark.

- The underlying unit mark will be used to calculate the percentage mark for each qualification.
- The underlying unit mark will be rounded to the nearest whole figure and this will be the mark for the unit.
- The percentage mark for each stage will be calculated to two decimal points. This will be known as the underlying mark for the stage.
- The overall percentage mark will be calculated to two decimal points and will then be rounded to the nearest whole figure.

Calculation of Overall Percentage Mark for an HNC

The overall mark for the HNC will be calculated according to the credit weighting of the units undertaken excluding any units from which a candidate has been exempt through the RPL. Where a unit is excluded from the calculation for the reasons given above, it will be given a weight of 0 in calculating the overall mark for the HNC.

7. Quality assurance

Pearson's quality assurance system for all Pearson BTEC Higher National programmes is benchmarked to Level 4 and Level 5 on the Quality Assurance Agency (QAA) Framework for Higher Education Qualifications (FHEQ). This will ensure that centres have effective quality assurance processes to review programme delivery. It will also ensure that the outcomes of assessment are to national standards.

The quality assurance process for centres offering Pearson BTEC Higher National programmes comprise five key components:

- 1 The approval process
- 2 Monitoring of internal centre systems
- 3 Independent assessment review
- 4 Annual programme monitoring report
- 5 Annual student survey.

7.1 The approval process

Centres new to the delivery of Pearson programmes will be required to seek approval initially through the existing centre approval process and then through the programme approval process. Programme approval for new centres can be considered in one of two ways:

- Desk-based approval review
- Review and approval visit to the centre.

Prior to approval being given, centres will be required to submit evidence to demonstrate that they:

- Have the human and physical resources required for effective delivery and assessment
- Understand the implications for independent assessment and agree to abide by these
- Have a robust internal assessment system supported by 'fit for purpose' assessment documentation
- Have a system to internally verify assessment decisions, to ensure standardised assessment decisions are made across all assessors and sites.

Applications for approval must be supported by the head of the centre (Principal or Chief Executive, etc.) and include a declaration that the centre will operate the programmes strictly, as approved and in line with Pearson requirements.

Centres seeking to renew their programme approval upon expiry of their current approval period may be eligible for the Automatic Approval process, subject to the centre meeting the eligibility criteria set out by Pearson.

Regardless of the type of centre, Pearson reserves the right to withdraw either qualification or centre approval when it deems there is an irreversible breakdown in the centre's ability either to quality assure its programme delivery or its assessment standards.

7.2 Monitoring of internal centre systems

Centres will be required to demonstrate ongoing fulfilment of the centre approval criteria over time and across all Higher National programmes. The process is assured by external examination, which is undertaken by External Examiners. Centres will be given the opportunity to present evidence of the ongoing suitability and deployment of their systems to carry out the required functions. This includes the consistent application of policies affecting student registrations, appeals, effective internal examination and standardisation processes. Where appropriate, centres may present evidence of their operation within a recognised code of practice, such as that of the Quality Assurance Agency for Higher Education. Pearson reserves the right to confirm independently that these arrangements are operating to Pearson's standards.

Pearson will affirm, or not, the ongoing effectiveness of such systems. Where system failures are identified, sanctions (appropriate to the nature of the problem) will be applied, in order to assist the centre in correcting the problem.

7.3 Independent assessment review

The internal assessment outcomes reached for all Pearson BTEC Higher National programmes benchmarked to Level 4 and Level 5 of the Quality Assurance Agency (QAA) Framework for Higher Education Qualifications (FHEQ), are subject to a visit from a Pearson appointed External Examiner. The outcomes of this process will be:

- To confirm that internal assessment is to national standards and allow certification, **or**
- To make recommendations to improve the quality of assessment outcomes before certification is released, **or**
- To make recommendations about the centre's ability to continue to be approved for the Pearson BTEC Higher National qualifications in question.

7.4 Annual Programme Monitoring Report (APMR)

The APMR is a written annual review form that provides opportunity for centres to analyse and reflect on the most recent teaching year. By working in collaboration with centres, the information can be used by Pearson to further enhance the quality assurance of the Pearson BTEC Higher National programmes.

7.5 Annual student survey

Pearson will conduct an annual survey of Pearson BTEC Higher National students. The purpose of the survey is to enable Pearson to evaluate the student experience as part of the quality assurance process, by engaging with students studying on these programmes.

7.6 Centre and qualification approval

As part of the approval process, your centre must make sure that the resource requirements listed below are in place before offering the qualification.

- Centres must have appropriate physical resources (for example equipment, IT, learning materials, teaching rooms) to support the delivery and assessment of the qualifications.
- Staff involved in the assessment process must have relevant expertise and/or occupational experience
- There must be systems in place to ensure continuing professional development for staff delivering the qualification
- Centres must have in place appropriate health and safety policies relating to the use of equipment by staff and students
- Centres must deliver the qualification in accordance with current equality legislation
- Centres should refer to the individual unit descriptors to check for any specific resources required.

7.7 Continuing quality assurance and standards verification

We produce annually the latest version of the **Pearson Quality Handbook**, which contains detailed guidance on the quality processes required to underpin robust assessment and internal verification.

The key principles of quality assurance are that:

- A centre delivering Pearson BTEC Higher National programmes must be an approved centre, and must have approval for the programmes or groups of programmes that it is delivering.
- The centre agrees, as part of gaining approval, to abide by specific terms and conditions around the effective delivery and quality assurance of assessment; it must abide by these conditions throughout the period of delivery.
- Pearson makes available to approved centres a range of materials and opportunities through online standardisation; these are intended to exemplify the processes required for effective assessment and provide examples of effective standards. Approved centres must use the materials and services to ensure that all staff delivering BTEC qualifications keep up to date with the guidance on assessment.
- An approved centre must follow agreed protocols for standardisation of assessors and verifiers, for the planning, monitoring and recording of assessment processes, and for dealing with special circumstances, appeals and malpractice.

The approach of quality-assured assessment is through a partnership between an approved centre and Pearson. We will make sure that each centre follows best practice and employs appropriate technology to support quality-assurance processes where practicable. We work to support centres and seek to make sure that our quality-assurance processes do not place undue bureaucratic processes on centres. We monitor and support centres in the effective operation of assessment and quality assurance.

The methods we use to do this for BTEC Higher Nationals include:

- Making sure that all centres complete appropriate declarations at the time of approval
- Undertaking approval visits to centres
- Making sure that centres have effective teams of assessors and verifiers who are trained to undertake assessment
- Assessment sampling and verification through requested samples of assessments, completed assessed student work and associated documentation
- An overarching review and assessment of a centre's strategy for assessing and quality-assuring its BTEC programmes.

An approved centre must make certification claims only when authorised by us and strictly in accordance with requirements for reporting. Centres that do not fully address and maintain rigorous approaches to quality assurance cannot seek certification for individual programmes or for all BTEC Higher National qualifications.

Centres that do not comply with remedial action plans may have their approval to deliver qualifications removed.

8. Recognition of Prior Learning and attainment

Recognition of Prior Learning (RPL) is a method of assessment (leading to the award of credit) that considers whether students can demonstrate that they can meet the assessment requirements for a unit through knowledge, understanding or skills they already possess, and so do not need to develop through a course of learning.

Pearson encourages centres to recognise students' previous achievements and experiences whether at work, home or at leisure, as well as in the classroom. RPL provides a route for the recognition of the achievements resulting from continuous learning. RPL enables recognition of achievement from a range of activities using any valid assessment methodology. Provided that the assessment requirements of a given unit or qualification have been met, the use of RPL is acceptable for accrediting a unit, units or a whole qualification. Evidence of learning must be valid and reliable.

For full guidance on RPL please refer to the Pearson policy document [Recognition of Prior Learning](#).

9. Equality and diversity

Equality and fairness are central to our work (see the Pearson **Equality and Diversity policy**). The design of these qualifications embeds consideration of equality and diversity as set out in the Quality Assurance Agency – Quality Code and Ofqual General Conditions of Recognition. Promoting equality and diversity involves treating everyone with equal dignity and worth, while also raising aspirations and supporting achievement for people with diverse requirements, entitlements and backgrounds. An inclusive environment for learning anticipates the varied requirements of students, and aims to ensure that all students have equal access to educational opportunities. Equality of opportunity involves enabling access for people who have differing individual requirements as well as eliminating arbitrary and unnecessary barriers to learning. In addition, students with and without disabilities are offered learning opportunities that are equally accessible to them, by means of inclusive qualification design.

Pearson's equality policy requires all students to have equal opportunity to access our qualifications and assessments. It also requires our qualifications to be designed and awarded in a way that is fair to every student. We are committed to making sure that:

- Students with a protected characteristic (as defined by the Equality Act 2010) are not, when they are undertaking one of our qualifications, disadvantaged in comparison to students who do not share that characteristic.
- All students achieve the recognition they deserve from undertaking a qualification and that this achievement can be compared fairly to the achievement of their peers.

Pearson's policy regarding access to its qualifications is that:

- They should be available to everyone who is capable of reaching the required standards
- They should be free from any barriers that restrict access and progression
- There should be equal opportunities for all those wishing to access the qualifications.

Centres are required to recruit students to Higher National qualifications with integrity. This will include ensuring that applicants have appropriate information and advice about the qualifications, and that the qualification will meet their needs. Centres will need to review the entry profile of qualifications and/or experience held by applicants, considering whether this profile shows an ability to progress to a higher level qualification. Centres should take appropriate steps to assess each applicant's potential and make a professional judgement about their ability to successfully complete the programme of study and achieve the qualification. This assessment will need to take account of the support available to the student within the centre during their programme of study and any specific support that might be necessary to allow the student to access the assessment for the qualification. Centres should consult our policy documents on students with particular requirements.

Access to qualifications for students with disabilities or specific needs

Students taking a qualification may be assessed in British Sign Language or Irish Sign Language, where it is permitted for the purpose of reasonable adjustments. Further information on access arrangements can be found in the Joint Council for Qualifications (JCQ) document *Access Arrangements, Reasonable Adjustments and Special Consideration for General and Vocational Qualifications*. Details on how to make adjustments for students with protected characteristics are given in the document *Pearson Supplementary Guidance for Reasonable Adjustment and Special Consideration in Vocational Internally Assessed Units*. See our website for **both documents**.

10. Higher Nationals Units

Unit 1: Clinical Practice Placement

Unit level	4
Unit code	L/615/1081
Credit value	30

Aims

The aim of the unit is to introduce students to professional practice and to the skills, knowledge and professional expectations that underpin and provide the foundations to such practice.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 demonstrate a working knowledge of the roles, responsibilities (including the HCPC Standards of Conduct, Performance and Ethics), sphere of practice, the relevant regulations, theory and knowledge that underpin their professional practice skills at this stage of their education and training;
- 2 provide care, information and advice in an ethical, non-judgemental and professional manner, which acknowledges differences in personal, religious and cultural beliefs and practices;
- 3 contribute to record keeping, the appropriate sharing of information and clinical decision-making which is informed by client/patient choice, research evidence, risk assessment and its management;
- 4 identify their strengths and areas for improvement using a range of resources to inform their Personal and Professional Development Planning;
- 5 develop their skills of reflection using their personal and professional experiences of practice to inform their future learning and development in their professional role.

Learning and Teaching Methods

In this unit students will encounter opportunities to learn from a variety of clinical experiences and contexts where they will be facilitated, supported and assessed by registered practitioners. The majority of assigned placements will be on operational emergency ambulances and dedicated specialist healthcare services. Other forms of learning and teaching will include clinical skills workshops, simulated practice and may include clinical visits/practice experiences, lectures, small group work, reflective group work, story sharing and theme days. The unit will also have elements of directed and self-directed study supported by the OLE.

Assessment Strategy (Indicative Assessment)

As this is a work-based unit there will be many opportunities for formative assessment and feedback on performance in the role of student paramedic, which will take a variety of forms (1–5). The summative assessment for the unit is entirely by a competency based portfolio of skills and reflections on practice against specified elements from the HCPC Standards of Proficiency.

Summative Assessment

Portfolio including Clinical Practice	6000-word equivalence Skills Record	100%
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Indicative Content

Professional duty of care, HCPC Standards of Conduct, Performance and Ethics for students and registered paramedics, working of professional bodies (legislative framework for practice), consent and confidentiality

Scope of Practice

HCPC Standards of Proficiency

Patient's best interest

User and carer perspectives in health

Non-judgemental practice, awareness non-verbal communication, body language

Infection control

Moving and handling patients with and without equipment, Manual handling equipment

Basic life support techniques to new-born, infant, child and adult patients

Introduction to safeguarding children and to domestic abuse

Record keeping

Developing a Personal Development Plan (PDP)

Rationale for the safe administration of (as appropriate to this level) emergency medicines as per current American Association of Clinical Endocrinologists

(AACE) guidelines, including knowing the relevant indications, contraindications, therapeutic effects, side effects and dosages, and the relevant basic pharmacology, including the pharmacodynamics and pharmacokinetics

Safety and health including emotional, physical and personal care

Stepwise airway management to the level of supraglottic devices

Aspiration techniques

Paediatric/adult immediate life support to the appropriate level

Aseptic technique

Measure and record RR, Pulse, SPO₂, ETCO₂, PEAK Flow, Temp

Patient assessment, introductory level (AVPU, GCS, capillary refill, skin colour)

The measurement of blood pressure using manual and electronic methods

Blood glucose monitoring to analyse glucose levels

Basic ECG rate and rhythm recognition

Auscultation technique (introductory level) to assess respiratory functioning

Use of immobilisation equipment: longboard, scoop stretcher, vest extrication, cervical collars, vacuum splints, traction splints

Undertake vehicle equipment check (availability, condition, reporting defects)

Use of a range of ambulance equipment found on a typical emergency ambulance in line with current care guidelines across all age ranges at the prevailing skill level

Maintaining own personal fitness

Effective and contemporaneous record keeping (introduction to patient report documentation)

Intra and inter-professional working

Evidence-based healthcare – locating, retrieving and judging information to make clinical decisions

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care Update*, 2nd Ed (soft back copy), Pearson New International Edition.

GARRETT, L., CLARKE, A. and SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students: Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE NETWORK NHS CONFEDERATION (2010) *Implementing Trauma Systems: Key Issues for the NHS*, London: The NHS Confederation.

BICKLEY, L.S. and SZILAGYI, P.G. (2007) *Bates' Guide to Physical Examination and History Taking*, 10th Ed., Philadelphia: Lippincott Williams & Wilkins.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed. Maidenhead: Open University Press.

BLEDSON, B., PORTER, R. and CHERRY, R. (2013) *Paramedic Care: Pearson New International Edition: Principles and Practice*, Volume 3, New Jersey: Pearson/Brady/Prentice Hall.

BRITISH THORACIC SOCIETY (BTS) (2008) 'Guidelines for emergency oxygen use in adult patients,' *Thorax*, BMJ 63.

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

DAY, J. (2006) *Inter-professional Working: An Essential Guide for Health- and Social-Care*, Cheltenham: Nelson Thornes.

- DEVITO, J. (2012) *The Interpersonal Communication Book*, London: Longman Press.
- GILL, D. and O'BRIEN, N. (2002) *Paediatric Clinical Examination Made Easy*, 4th Ed. Edinburgh: Churchill Livingstone.
- GREGORY, P. and MURSELL, I. (2010) *Manual of Clinical Paramedic Procedures*, Singapore: Wiley-Blackwell Publishing.
- JOHNSON, G. (2000) *The Minor Illness Manual*, 2nd Ed., Oxon: Radcliffe Press.
- LLOYD, M. and BOR, R. (2004) *Communication Skills for Medicine*, 2nd Ed., London: Harcourt.
- MARIEB, E.N. and HOEHN, K. (2007) *Human Anatomy and Physiology*, 7th Ed., San Francisco: Pearson Benjamin Cummings.
- NAEMT (2011) *PHTLS: Prehospital Trauma Life Support*, 7th Ed., Bridgewater: Jones and Bartlett.
- SKINNER, D.V and DRISCOLL, P.A. (2013) *ABC of Major Trauma*, 4th Ed., Oxford: Wiley Blackwell.

Unit 2: Foundations of Paramedic Practice

Unit level	4
Unit code	D/615/1084
Credit value	30

Aims

This unit aims to develop students' knowledge and understanding of ambulance clinical care for a range of patients with acute and/or chronic medical conditions, as well as facilitating the development of effective and transferable verbal and written communication skills, such as handover and the accurate keeping of records. It provides students with the knowledge and skills to manage a wide range of common medical presentations found in the pre-hospital environment whilst recognising and acting within the professional, legal and ethical boundaries of the paramedic profession.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 recognise a range of pre-hospital medical presentations and describe the theoretical basis of the approaches to assessment of medical patients across the human lifespan;
- 2 gather patient information using interviewing techniques and conduct necessary diagnostic and monitoring procedures safely and effectively, including the components of assessment applied to specific body systems;
- 3 analyse patient assessment information, formulate specific and appropriate management plans including the setting of timescales;
- 4 communicate effectively, both verbally/non-verbally and in writing, with service user groups, professional colleagues and in an inter-professional environment;
- 5 practice within the legal and ethical boundaries (whilst maintaining the HCPC Standards of Conduct, Performance and Ethics (SPCE)), including informed consent, confidentiality and record keeping protocol, relevant to contemporary healthcare practice.

Learning and Teaching Methods

This unit will employ a range of teaching and learning strategies including: introductory lectures to the fundamental concepts of the subject and access expert knowledge; seminars to develop deeper understanding of the subject and facilitate the construction of reasoned arguments, building on personal beliefs and professional values; simulation workshops to practice verbal assessment techniques and clinical skills in a safe environment; access to second life technologies to practice decision making in a range of virtual clinical environments; work-based learning to apply the student's knowledge and simulated skills into the clinical environment under supervision; self-directed learning in order to relate information from textbooks; and using information technology to locate and retrieve information.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will test knowledge, skills and professional attitudes across a range of mechanisms. There will be ongoing formative assessment of the students' knowledge in a range of clinical presentations in the form of online multiple choice questions (MCQs) and case studies (LO1). Clinical skills including patient history taking, diagnostic and monitoring procedures will be assessed formatively during simulated practice, both in workshops and through technology supported by clinical decision-making tools (LOs 2, 3). Students' application of the knowledge, skills and professional attitudes in relation to dealing with a range of medical presentations across the lifespan and in a range of environments in which paramedics work will be tested through work-based assessment (LOs 1–5). The unit will culminate in both a summative written assessment (LO 1, 5), a MCQ exam (LOs 1–4) and an OSCE (LOs 2, 3, 4).

Summative Assessment

Written assignment based on case studies	3000 words	50%
Unseen examination Part B	1 hour	50%
Objectified Structured Clinical Examination	1 hour	pass/fail

Indicative Content

Biomedical ethics and morale theories

HCPC Standards of Conduct, Performance and Ethics

HCPC Standards of Proficiency

Analgesia for patients

Assessment, examination and monitoring of body systems

Pathophysiology of cardiovascular system disorders including chronic obstructive pulmonary disease (COPD), acute myocardial infarction (AMI), heart failure, hypertension and venous thromboembolism (VTE)

Stroke, epilepsy, asthma, anaphylaxis, diabetes, sickle cell, fractures

Principles of Care for patients with acute common cardiovascular, respiratory neurological, gastro-intestinal, muscular-skeletal and endocrine conditions

Fundamentals of resuscitation (adults and paediatrics)

Poisoning and overdose

Mental health introduction, dementia

Domestic abuse

Foundational care and management of paediatric, obstetric and elderly patients

Interpersonal communication skills

Clerking patients and history taking

Multi-professional team working

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE NETWORK NHS CONFEDERATION (2010) *Implementing Trauma Systems: Key Issues for the NHS*, London: The NHS Confederation.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed., Maidenhead: Open University Press.

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

DAY, J. (2006) *Inter-professional Working: An Essential Guide for Health- and Social-Care*, Cheltenham: Nelson Thornes.

DEVITO, J. (2012) *The Interpersonal Communication Book*, London: Longman Press.

GALBRAITH, A., BULLOCK, A., MANIAS, E., HUNT, B. and RICHARDS, A. (2007) *Fundamentals of Pharmacology*, London: Pearson.

GOULD, B.E. (2006) *Pathophysiology for the Health Professions*, London: W. B. Saunders.

HAWLEY, G. (2007) *Ethics in Clinical Practice: An Inter-Professional Approach*, London: Pearson.

Journals

Annals of Emergency Medicine

Journal of Paramedic Practice

Resuscitation

Indicative journal articles

BRITISH MEDICAL ASSOCIATION, RESUSCITATION COUNCIL (UK), ROYAL COLLEGE OF NURSING (2007) 'Decisions relating to cardiopulmonary resuscitation', London: RCN publication.

BRITISH THORACIC SOCIETY (BTS) (2008) 'Guidelines for emergency oxygen use in adult patients', *Thorax*, BMJ 63.

BRITISH THORACIC SOCIETY (2012) 'British Guideline on the Management of Asthma: A national clinical guideline', British Thoracic Society and Scottish Intercollegiate Guidelines Network.

GUNNELL, D., HO, D. and MURRAY, V. (2004) 'Medical management of deliberate drug overdose: A neglected area for suicide prevention?' *Emerg Med J*:21, pp. 35–38.

HALLIWELL, D., JONES, P., RYAN, E. and CLARK, R. (2011) 'The revision of the primary survey: a 2011 review', *Journal of Paramedic Practice*: Vol. 3, No. 7.

HILL K. and GORMAN J. (2007). 'How to... help someone who is suicidal', London: Mind.

MANN, R. and WILLIAMS J. (2003) 'Standards in medical record keeping', *Clinical Medicine*: Vol. 3, No. 4.

MEDICINES AND HEALTHCARE PRODUCTS REGULATORY AGENCY (2008) 'Medicines and Medical Devices: What you need to know', London: MHRA

NATIONAL END OF LIFE CARE PROGRAMME AND ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2012) 'The route to success in end of life care – achieving quality in ambulance services', National End of Life Care Programme: London.

NATIONAL INSTITUTE FOR CLINICAL EXCELLENCE (2004) 'Clinical practice guideline for the assessment and prevention of falls in older people', London: Royal College of Nursing.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2006) 'The management of atrial fibrillation', NICE.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2008) 'Stroke: Diagnosis and initial management of acute stroke and transient ischaemic attack (TIA)', NICE.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2010) 'Chest pain of recent onset: Assessment and diagnosis of recent onset chest pain or discomfort of suspected cardiac origin', NICE.

NATIONAL INSTITUTE FOR HEALTH AND CARE EXCELLENCE (2011) 'Anaphylaxis CG134', available from:
<http://guidance.nice.org.uk/CG134/NICEGuidance/pdf/English>

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2011) 'Clinical Guideline CG109: Transient loss of consciousness in adults and young people', NICE.

NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2011) 'Hypertension: Clinical management of primary hypertension in adults', NICE.

PULLEN I. and LOUDON J. (2006) 'Improving standards in clinical record-keeping', Advances in Psychiatric Treatment: vol. 12, pp. 280–286.

Indicative online resources

National Institute for Health and Clinical Excellence: <http://guidance.nice.org.uk>

Patient: <http://www.patient.co.uk>

Age UK: <http://www.ageuk.org.uk>

Health and Safety Executive guidance: <http://www.hse.gov.uk/slips/step/index.htm>

NHS guidance: <http://www.nhs.uk/Conditions/Falls/Pages/Prevention.aspx>

Dying Matters: <http://www.dyingmatters.org/>

<http://www.endoflifecare-intelligence.org.uk/home>

NHS guidance: <http://www.nhs.uk/conditions/Self-injury/Pages/Introduction.aspx>

UK Sepsis: <http://www.uksepsis.org>

The UK Sepsis Trust: <http://sepsistrust.org>

Surviving Sepsis Campaign: <http://www.survivingsepsis.org>

International Sepsis Forum: <http://sepsisforum.org>

Unit 3: Foundation of Life Sciences

Unit level	4
Unit code	H/615/1085
Credit value	15

Aims

The aim of this unit is to enable students to develop an understanding of the principal concepts of human anatomy and physiology, cell biology, basic physical and biochemical principles, laws and measurements, together with an understanding of normal physiological values of humans across the lifespan and the importance of knowing this in the context of paramedic practice.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 describe the normal physiological parameters for humans across the lifespan;
- 2 apply physical and biomedical principles, laws and measurements to their paramedic practice;
- 3 identify the correct positioning of body parts using anatomical terminology;
- 4 appreciate cell biology, its structure, physiology and differentiation across body systems;
- 5 correlate life science theory across the systems and demonstrate their understanding to their clinical practice.

Learning and Teaching Methods

This unit will employ a range of teaching and learning strategies including: lectures to introduce the fundamental concepts of the subject and to access expert knowledge; seminars to develop deeper understanding of the subject and facilitate the construction of reasoned arguments, building on personal beliefs and professional values; self-directed learning in order to relate information from textbooks; using information technology to locate and retrieve information; and case studies and practical skills sessions.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will test knowledge, skills and professional attitudes across a range of mechanisms. There will be formative assessment of the students' knowledge of normal anatomy and physiology in the form of online MCQs at regular intervals for the duration of the unit, which enables opportunity for development of understanding (LOs 1, 3, 4 and 5) before the end of unit assessment in the form of an unseen written examination, which enables students to demonstrate their ability to apply life science theory to paramedic scenarios (LOs 2 and 5). Students' application of physiological measurement, psychology, physical laws and biological principles will be tested through formative work-based assessment.

Summative Assessment

Written Examination Part A	2 hours	100%
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Indicative Content

HCPC Standards of Proficiency

Principles of human anatomy and physiology and maintaining homeostasis

The cardiovascular system – the heart and cardiac cycle, ECG and cardiac monitoring, arteries and veins

The respiratory system – lung architecture, lung function, gaseous exchange, the control of breathing

The nervous system – structure, organisation and functions

The endocrine system – pancreas, hormone secretions

The gastro-intestinal system – process of digestion

The integumentary system and wound healing process

Immune systems and response to infection and injury

The muscular-skeletal system – structure and function

Hepato-renal and urinary system

Reproductive systems

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

DOUGLAS, G., NICOL, F. and ROBERTSON, C. (2005) *Macleod's Clinical Examination*, 11th Ed., Edinburgh: Churchill, Livingstone.

HERLIHY, B and MAEBINS, N. K. (2002) *Human Body in Health and Illness*, 2nd Ed., London: W. B. Saunders.

LYNN, S. and HUTCHINSON, J. (2007) *Bates' Guide to Physical Examination and History Taking*, 9th Ed., London: Lippincott Williams & Wilkins.

MARIEB, E.N. and HOEHN, K. (2007) *Human Anatomy and Physiology*, 7th Ed., San Francisco: Pearson, Benjamin Cummings.

MOORE, K., DALLEY, A. and AGUR, A. (2010) *Clinically Oriented Anatomy*, 6th Ed., London: Lippincott Williams & Wilkins.

TORTORA, G.J. and DERRICKSON, B. (2013) *Principles of Anatomy and Physiology*, 12th Ed., New York: John Wiley.

Indicative online resources

Mastering A+P Pearson <https://www.masteringaandp.com/site/login.html>

<http://guidance.nice.org.uk>

Patient: <http://www.patient.co.uk>

Age UK: <http://www.ageuk.org.uk>

Nursing and Midwifery Council: <http://www.nmc-uk.org/Publications/Guidance/>

Health and Safety Executive guidance: <http://www.hse.gov.uk/slips/step/index.htm>

NHS guidance: <http://www.nhs.uk/Conditions/Falls/Pages/Prevention.aspx>

Dying Matters: <http://www.dyingmatters.org/>

National End of Life Care Intelligence Network: <http://www.endoflifecare-intelligence.org.uk/home>

NHS guidance: <http://www.nhs.uk/conditions/Self-injury/Pages/Introduction.aspx>

<http://www.uksepsis.org>

The UK Sepsis Trust: <http://sepsistrust.org>

Surviving Sepsis Campaign: <http://www.survivingsepsis.org>

<http://sepsisforum.org>

International Sepsis Forum: <http://internationalsepsisforum.com/>

Unit 4: Foundations of Emergency and Unscheduled Trauma Care

Unit level	4
Unit code	M/615/1087
Credit value	30

Aims

The unit aims to introduce students to the major concepts of ambulance practice with respect to trauma, injury and poisoning. It will endeavour to increase their knowledge of immunity, infection and infection control, and develop students' appreciation of the integration of emergency services in managing incidents.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 deploy the skills of enquiry and communication appropriate to the level of study in the context of managing injury;
- 2 discuss possible mechanism of injuries in the single and multi-casualty situation;
- 3 assess an injured person, safely deploy appropriate initial care strategies and carry out a range of ambulance procedures (immobilisation, splinting, wound dressing) related to injury and trauma;
- 4 triage and manage multi-casualty incidents, identifying appropriate trauma disposition pathways, procedures for managing situations involving hazardous substances, effective dealing with the public and management of deceased bodies;
- 5 demonstrate working knowledge of the principles and practices of immunity, infection and infection control.

Learning and Teaching Methods

This unit will employ a range of teaching and learning strategies including: lectures to introduce the fundamental concepts of the assessment and care of an injured patient and to access expert knowledge; seminars to develop deeper understanding of the subject and facilitate the construction of reasoned arguments and decision-making processes, building on personal beliefs and professional values; problem-based learning to enable teamwork and problem solving in the management of major incidents; simulation workshops to practice verbal assessment techniques and clinical skills in a safe environment; access to second life technologies to practice decision making in a range of virtual clinical environments; work-based learning to apply the students' knowledge and simulated skills into the clinical environment under supervision; self-directed learning in order to relate information from textbooks; and using information technology to locate and retrieve information.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will test knowledge, skills and professional attitudes across a range of mechanisms. There will be assessment of the students' knowledge of a range of presentations of trauma patients in the form of online MCQs and case studies (LOs 2 and 5).

Clinical skills including patient history taking, diagnostic and monitoring procedures will be assessed formatively during simulated practice, both in workshops and through technology supported clinical decision-making tools (LOs 3, 4 and 5). The students' ability to work as part of a team and locate and retrieve information to inform clinical decision making is assessed formatively and summatively using PBL.

Students' application of the knowledge, skills and professional attitudes in relation to dealing with a range of trauma presentations across the lifespan and in a range of environments in which paramedics work will be tested through work-based assessment (LOs 1–5). The unit will culminate in both a group presentation, an individual piece of written work based on PBL (LOs 1, 2 and 4) and an OSCE (LOs 1, 2, 3 and 5). The OSCE is an essential component of the assessment process, which carries with it a pass/fail mark. Students must pass this element of the assessment to pass the unit overall as it carries no academic compensation. In all assessment elements, the student will need to demonstrate the knowledge, understanding and reflection on practice against the HCPC criteria for a Level 4 practitioner.

Summative Assessment

Written assignment case scenario	3000 words	50%
Group presentation/micro-teach	1 hour	50%
OSCE	1 hour	pass/fail

Indicative Content

Homeostasis in trauma

Kinematics of trauma and the mechanism of injury

Assessment of the patients with cardio-respiratory, neurological and muscular skeletal injuries

Managing major and minor wounds including haemorrhage control, burns and toxicological incidents

Paramedic interventions and care pathways for injured patients including analgesia, immobilisation and rapid safe transfer

HCPC Standards of Proficiency

Principles of infection control and contamination

Paramedic role in major incidents

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE NETWORK NHS CONFEDERATION (2010) *Implementing Trauma Systems: Key Issues for the NHS*, London: The NHS Confederation.

BAXT, W. and MOODY, P. (1987) 'The impact of a physician as part of the aeromedical pre-hospital team in patients with blunt trauma', *JAMA* 1987; 257(23): pp. 3246–3250.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed. Maidenhead: Open University Press.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2012) *Paramedic Care: Principles and Practice, Volume 1: Introduction to Paramedicine*, 4th Ed., New Jersey: Prentice Hall.

BLUMEN, I and UCAN SAFETY COMMITTEE (2001) *A Safety Review and Risk Assessment in Air Medical Transport*, Air Medical Physician Association.

BRITISH THORACIC SOCIETY (BTS) (2008) 'Guidelines for emergency oxygen use in adult patients', *Thorax*, BMJ 63

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

- CREWDSON, LOCKEY, DAVIES ET AL. (2006) 'Traumatic Cardiac Arrest: who are the survivors?' *Annals of EM*, 2006.
- DAY, J. (2006) *Inter-professional Working: An Essential Guide for Health- and Social-Care*, Cheltenham: Nelson Thornes.
- DEVITO, J. (2012) *The Interpersonal Communication Book*, London: Longman Press.
- GREGORY, P. and MURSELL, I. (2010) *Manual of Clinical Paramedic Procedures*, Singapore: Wiley-Blackwell Publishing.
- HOLLERMAN, R.S. (2003) *Air and Surface Patient Transport, Principles and Practice*, Missouri: Mosby.
- HUDAK, C.M., GALLO, B.M. and GONCE-MORTON, P. (1998) *Critical Care Nursing: A Holistic Approach*, 7th Ed., Philadelphia PA: Lippincott Williams and Wilkins.
- NAEMT (2011) *PHTLS: Pre-hospital Trauma Life Support*, 7th Ed., Bridgewater: Jones and Bartlett.
- NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2011) *Head Injury [CG56]*, NICE.
- PURCELL, D. (2010) *Minor Injuries: A Clinical Guide*, 2nd Ed., London: Churchill Livingstone.
- REINHART, R.O. (1996) *Basic Flight Physiology*, 2nd Ed., New York: McGraw-Hill.
- SAURET, J.M., MARINIDES, G. and WANG, G.K. (2002) *Rhabdomyolysis*, *American Family Physician*, 65(5): pp. 907–12.
- SKINNER, D.V. and DRISCOLL, P.A. (2013) *ABC of Major Trauma*, 4th Ed., Oxford: Wiley Blackwell.
- VAN EMDEN, J. and BECKER, L. (2010) *Presentation Skills for Students (Palgrave Study Skills)*, Hampshire: Palgrave Macmillan.

Useful resources

- BRITISH NATIONAL FORMULARY (www.bnf.org/)
- HEALTHCARE FOR LONDON (2007) 'A Framework for action', London.
- HEALTHCARE FOR LONDON (2009) 'The Shape of Things to Come – Developing high quality major trauma and stroke services in London', London.
- Major Trauma Outcome Study (MTOS) (1992) 'The case for change'.
- NATIONAL AUDIT OFFICE (2010) *Major Trauma in England*.
- NCEPOD report (2007) *Trauma: Who Cares; A National Confidential Enquiry into Patient Outcomes and Death*.
- NHS CLINICAL ADVISORY GROUPS (2010) 'Regional Networks on Major Trauma: NHS Clinical Advisory Groups' report'.
- ROYAL COLLEGE OF SURGEONS (1988) 'Report of the working party on the management of patients with major injury', London.
- ROYAL COLLEGE OF SURGEONS (1999) 'Report of the working party on the management of patients with head injuries', London.
- ROYAL COLLEGE OF SURGEONS (2009) 'Regional Trauma Systems: An interim guide for commissioners: An inter-collegiate group on trauma standards'.

ROYAL COLLEGE OF SURGEONS AND THE BRITISH ORTHOPAEDIC ASSOCIATION (2010) 'Better care for the severely injured: A joint report from the Royal College of Surgeons and the British Orthopaedic Association'.

ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE BRITISH ORTHOPAEDIC SOCIETY (2000) 'Better care for the severely injured', London.

Unit 5: Contemporary Issues in Healthcare Practice

Unit level	4
Unit code	T/615/1088
Credit value	15

Aims

Paramedics are increasingly required to extend their role and operate in a range of socio-cultural contexts with service users who have a range of psycho-social, cultural, political and ethical variables influencing their behaviours and care management.

The aim of this unit is to provide an overview of how health provision is influenced by demographic factors, health trends, policy and funding, and to provide students with a range of theoretical perspectives on health.

Specific attention will be paid to critical incidents in healthcare provision that have affected policy, practice and governance, and students will be familiarised with the government inquiry process and reports. The paramedic practitioner needs to be able to work within such a complex framework in order to provide effective care irrespective of background of the service user or the context of the healthcare setting.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 consider how contemporary health and social care policies shape the provision of a range of healthcare services in the United Kingdom;
- 2 illustrate how critical incidents of healthcare practice influence clinical governance, service policy and paramedic practices;
- 3 appreciate the effect of changing demographic and socio-cultural variables on health behaviours, disease and ambulance service provision;
- 4 apply a range of social and psychological theories on health and health-related behaviour, and how it affects paramedic decision making and communicating with a spectrum of service users;
- 5 exemplify a range of health and health promotion theories; analyse the respective places of both the service user and the professional in the provision of healthcare.

Teaching and Learning Methods

This unit will employ a range of teaching and learning strategies including: lectures, to gain knowledge and understanding of the subject; inquiry-based learning which includes directed learning to locate, retrieve and relate information from textbooks, policy documents and other online resources; seminars, to examine critical incidents and ensuing reports of healthcare (mal)practice (such as the Victoria Climbié and Baby P inquiries into child protection, The Shipman Inquiry into medical malpractice and prescribing, and The Francis Inquiry into whole service failure) and practical application of healthcare theory in clinical practice.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will monitor, provide feedback on and assess students' application of health and social theories, policies and practices in a number of ways.

There will be assessment of the appreciation of a variety of socio-cultural, psychological and political variables across patient populations and healthcare settings (LOs 1–4) and its impact on practice. This will take the form of in-class critical examination of journalistic articles and government reports (for example, The Francis Inquiry, The Shipman Inquiry and the Baby P and Victoria Climbié cases) (LO2) and student-led presentation of research findings. Consideration of the psychological and socio-cultural status of a service user will be assessed when the student is undertaking clinical skills in practice (LOs 3, 4 and 5).

The unit will culminate in an essay around healthcare theories, policies and practices (LOs 1, 3, 4 and 5) and a poster presentation outlining a case of healthcare (mal)practice which has influenced service provision (LO2) and a reflection on individual clinical accountability and responsibility (LO5).

Summative Assessment

Essay	1500 words	50%
Poster Presentation	1000 words (approx.)	50%

Indicative Content

Health and social care policy and frameworks
Definitions and models of health and health behaviour
Professional development and service improvement
Interpersonal communication
Impact of changing demographics
Government inquiries into healthcare provision failures
Clinical governance
Clinical leadership accountability and responsibility
HCPC Standards of Conduct, Performance and Ethics
HCPC Standards of Proficiency

Human factors
Risk-taking behaviour
Safeguarding children and vulnerable adults
Systematic approaches to health promotion work
Reflective practice

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE ASSOCIATION/SCHOOL OF HEALTH and RELATED RESEARCH (2000) *The Future of Ambulance Services in the United Kingdom*, University of Sheffield.

BAGGOTT, R. (2004) *Health and Health Care in Britain*, 3rd Ed., Basingstoke: Macmillan.

BIRCHENALL, M. and BIRCHENALL, P. (Eds) (2000) *Sociology as Applied to Nursing and Health Care*, London: Bailliere Tindall.

CURTIS, A. (2000) *Health Psychology*, London: Routledge.

DEPARTMENT OF HEALTH (1997) *The New NHS: Modern, Dependable*, London: DOH.

DEPARTMENT OF HEALTH (2000) *Saving Lives: Our Healthier Nation*, London: DOH.

DEPARTMENT OF HEALTH (2005) *Taking Healthcare to the Patient: Transforming NHS Ambulance Services*, London: Department of Health.

DEPARTMENT OF HEALTH AND THE HOME OFFICE (2013) *Patients First and Foremost: The Initial Government Response to the Report of the Mid Staffordshire NHS Foundation Trust Public Inquiry (The Francis Report)*, London: HMSO.

DEPARTMENT OF HEALTH AND THE HOME OFFICE (2003) *The Victoria Climbié Inquiry, Report of an Inquiry by Lord Laming*, Cm 5730, London: HMSO (and also <http://www.publications.parliament.uk/pa/cm200203/cmselect/cmhealth/570/570.pdf>)

EDELMANN, R.J. (2000) *Psycho-social Aspects of the Health Care Process*, Harlow: Prentice Hall.

LEATHARD, A. (2000) *Health Care Provision: Past, Present and into the 21st Century*, 2nd Ed., Cheltenham: Stanley Thornes.

NAIDOO, J. and WILLS, J. (2000) *Health Promotion: Foundations for Practice*, 2nd Ed., London: Balliere Tindall.

ORME J. et al. (2003) *Public Health for the 21st Century: New Perspectives on Policy, Participation and Practice*, Maidenhead: Open University Press.

RUSSELL. J. (2005) *Introduction to Psychology for Health Carers*, Cheltenham: Nelson Thornes.

SIEGRIST, J., and MARMOT, M. (Eds) (2006) *Social Inequalities in Health: New Evidence and Policy Implications*. Oxford: Oxford University Press.

TOWNSEN, P. (1992) *Inequalities in Healthcare and the Health Divide*, London: Penguin.

WALSH, M. (2004) *Introduction to Sociology for Health Carers*, Cheltenham: Nelson Thornes.

WILKINSON, R. and MARMOT, M. (Eds.) (2003) *Social Determinants of Health: The Solid Facts*, 2nd Ed., Copenhagen: World Health Organisation.

Unit 6: Paramedic Practice Placement

Unit level	5
Unit code	A/615/1089
Credit value	30

Aims

The aim of this unit is to enhance development by further advancing the knowledge base and the breadth and proficiency of the students' professional practice within the pre-hospital setting. It will ensure that students have the opportunity to achieve the required standards of proficiency, specifically in identified aspects of clinical practice as laid down by the HCPC for registration as a paramedic.

Learning Outcomes

Having completed the unit, students will be able to:

- 1 evaluate the myriad of responsibilities, sphere of practice, relevant regulations, theory and knowledge that underpin their professional practice as laid down by the HCPC, including the standards of conduct, performance and ethics for students and for registered paramedics;
- 2 provide a high standard of care, information and advice in an ethical, consensual, non-judgemental and professional manner, which acknowledges differences in personal, religious and cultural beliefs and practices;
- 3 demonstrate the ability to keep accurate and contemporaneous records, share relevant information and perform effective clinical decision making which is informed by client/patient choice, research evidence, assessed risk assessment and the professional standards;
- 3 critically analyse professional experience through reflection, action and critical awareness in order to develop their role and inform their personal and professional development to enhance patient care;
- 5 demonstrate achievement of the required standards of proficiency for specifically identified aspects of clinical practice as laid down by the HCPC for registration as a paramedic.

Learning and Teaching Methods

In this unit the student will encounter opportunities to learn from a variety of clinical experiences and contexts, where they will be facilitated, supported and assessed by registered practitioners. There will be an opportunity to gain experience in different areas of practice. Learning and teaching methods may include skills workshops, reflective workshops, story sharing, enquiry-based learning, lectures, seminars and tutorials using specific workbooks and online resources.

Assessment Strategy (Indicative Assessment)

The assessment for this unit is ongoing practice-based assessment of the competencies laid down by the HCPC and is documented in the Pearson Clinical Practice Skills Record (CPSR) and by a range of reflective accounts on practice. The rationale behind this is to ensure that all clinical skills are grounded in an appreciation of the appropriate theory and professional knowledge skills and attitudes befitting of a registered practitioner.

There will be many opportunities through the year to practice skills in a simulated and real-life practice environment and to gain feedback and support before the work is summatively assessed at the end of the pre-registration part of the programme.

Summative Assessment

Portfolio of work, which may include reflective writing of the learning journey, oral presentations, critical application of theory and practice across a range of clinical, ethical and professional issues

Clinical Practice Portfolio (with completed Clinical Practice Skills Record)	6000 words or equivalent	100%
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Indicative Content

Principles of biomedical ethics and morals

Professional duty of care

HCPC Standards of Conduct, Performance and Ethics for students; working of professional bodies (legislative framework for practice)

HCPC Standards of Proficiency: paramedics

Informed consent and confidentiality

Maintaining own personal health and fitness

Personal and professional development planning, mentoring

Enhanced communication skills

Service user and carer perspectives in health

Manual handling update, bariatric patients

Infection control update

Safeguarding vulnerable adults

Domestic abuse

Clinical reasoning

Adult advanced life support

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE NETWORK NHS CONFEDERATION (2010) *Implementing Trauma Systems: Key Issues for the NHS*, London: The NHS Confederation.

BICKLEY, L.S. and SZILAGYI, P.G. (2007) *Bates' Guide to Physical Examination and History Taking*, 10th Ed., Philadelphia: Lippincott, Williams & Wilkins.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed., Maidenhead: Open University Press.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2013). *Paramedic Care: Pearson New International Edition: Principles and Practice, Volume 3*. New Jersey: Pearson/Brady/Prentice Hall.

BRITISH THORACIC SOCIETY (BTS) (2008) 'Guidelines for emergency oxygen use in adult patients.' *Thorax*. BMJ 63.

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

DAY, J. (2006) *Inter-professional Working: An Essential Guide for Health- and Social-Care*, Cheltenham: Nelson Thornes.

DEVITO, J. (2012) *The Interpersonal Communication Book*, London: Longman Press.

GILL, D. and O'BRIEN, N. (2002) *Paediatric Clinical Examination Made Easy*, 4th Ed., Edinburgh: Churchill Livingstone.

GREGORY, P. and MURSELL, I. (2010) *Manual of Clinical Paramedic Procedures*, Singapore: Wiley-Blackwell Publishing.

JOHNSON, G. (2000) *The Minor Illness Manual*, 2nd Ed., Oxon: Radcliffe Press.

LLOYD, M. and BOR, R. (2004) *Communication Skills for Medicine*, 2nd Ed., London: Harcourt.

MARIEB, E.N. and HOEHN, K. (2007) *Human Anatomy and Physiology*, 7th Ed., San Francisco: Pearson Benjamin Cummings.

NAEMT (2011) *PHTLS: Pre-hospital Trauma Life Support*, 7th Ed., Bridgewater: Jones and Bartlett.

SKINNER, D.V. and DRISCOLL, P.A. (2013) *ABC of Major Trauma*, 4th Ed., Oxford: Wiley Blackwell.

Journals

British Journal of Nursing

British Medical Journal

Emergency Medicine Journal

Evidenced-based Medicine

Evidence-based Nursing

Journal of Inter-professional Care

Journal of Paramedic Practice

The Lancet

Electronic resources

Care Quality Commission: <http://www.cqc.org.uk/>

Department of Health: <https://www.gov.uk/government/organisations/department-of-health>

National Institute for Clinical Excellence: <https://www.nice.org.uk/>

National Service Frameworks

NHS Choices: <http://www.nhs.uk/pages/home.aspx>

NHS Evidence Library: <https://www.evidence.nhs.uk/>

Monitor: <https://www.gov.uk/government/organisations/monitor>

Taking Healthcare to the Patient

Unit 7: Developing Paramedic Practice

Unit level	5
Unit code	M/615/1090
Credit value	30

Aims

The unit aims to build on knowledge and understanding acquired at Level 4 to develop skills, critical thinking and reflection in relation to common medical emergencies encountered in paramedic practice.

It enables consolidation of students' understanding of the processes that give rise to the signs and symptoms of common diseases, patient assessment and effective management, including the appropriate pharmacological interventions for effective and safe paramedic practice.

Learning Outcomes

Having completed this unit the student will be able to:

- 1 explain and apply patho-physiological knowledge of a wide range of common medical conditions;
- 2 analyse, from a theoretical basis, a variety of approaches to assessment and management of specific patients and client groups based on a wide range of evidence in order to alleviate or stabilise common disease states;
- 3 critically assess a range of pharmacological approaches to patient management in a variety of situations;
- 4 undertake or arrange clinical investigations, appropriate diagnostic or monitoring procedures safely and skilfully to enable formulation of working diagnostic hypotheses in order to alleviate or stabilise a range of medical presentations and allow safe transfer of client care including the completion of relevant documentation;
- 5 reflect on their own competence in the decision making involved in holistic patient assessment and care, and address the HCPC Standards of Conduct, Performance and Ethics.

Learning and Teaching Methods

Students will experience a range of methods including lectures, discussions in groups, problem-solving scenarios and explicit instruction within the practice setting to review the underpinning anatomy and physiology and discuss the patho-physiological processes involved, how to problem-solve and how to make appropriate interventions using evidence-based healthcare.

Patient assessment will be taught by use of skills laboratory, technology enhanced simulation and role play. Patient assessment will also be carried out in practice under the supervision of qualified staff, and analysis of these assessments will be evaluated in discussion groups.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will test knowledge, skills and professional attitudes across a range of mechanisms. There will be assessment of the students' knowledge in a range of presentations of medical patients in the form of online MCQs (LOs 1–4).

Clinical skills, including patient history taking, diagnostic and monitoring procedures, will be assessed formatively during simulated practice, both in workshops and through technology supported clinical decision-making tools (LOs 3 and 4). Students' ability to locate and retrieve information to inform the clinical decision making on a range of clinical scenarios will be monitored throughout the unit. Students' application of the knowledge, skills and professional attitudes in relation to dealing with a range of medical presentations across the lifespan and in a range of environments in which paramedics work will be tested through work-based assessment (LOs 4–5).

The unit will culminate in an unseen examination around pathophysiology, medical presentation and management (LOs 1–3), an essay based on reflective analysis of their practice (LOs 1, 2, 3 and 5) and a clinical examination (LOs 2, 3 and 4).

The OSCE is an essential component of the assessment process, which carries with it a pass/fail mark. Students must pass this element of the assessment to pass the unit overall, as it carries no academic compensation. In all assessment elements, the student will need to demonstrate the knowledge, understanding and reflection on practice against the HCPC criteria for a Level 5 Practitioner.

Summative Assessment

Unseen examination	1 hour	50%
Essay	3000 words	50%
OSCE examination	1 hour	pass/fail

Indicative Content

Systemic manifestation of disease:

- Disease progression
- Cascade effect of disease
- Cardiac arrest
- Organ/system failure

Clinical significance of signs and symptoms and differentiation of normal vs. abnormal findings and use of a 'working impression/diagnosis'

Review of the anatomy and physiology and diseases of the cardiovascular system:

- Arterial degeneration (arteriosclerosis, atheroma formation)
- Arterial disease (aneurysms, peripheral vascular disease)
- Acute coronary syndrome (myocardial infarction, angina) overview of prescribed medications
- Heart failure, chronic and acute
- Hypertension, venous disease (phlebitis, cellulitis, varicose veins, DVT, compartment syndrome):
- Ischaemic heart disease: Valve disease

Review of the anatomy and physiology and diseases of the respiratory system:

- COPD (chronic bronchitis, emphysema, exacerbations)
- Asthma
- Pneumonia
- Pneumothorax
- Tuberculosis
- Occupational lung diseases

Review of the anatomy and physiology and diseases of the nervous system:

- Neuronal damage (demyelination)
- Cerebral oedema
- Raised ICP
- Circulatory disturbances
- Intracranial haemorrhage
- Aging brain
- Cerebral infections (meningitis)
- Cerebral vascular event

Review of the anatomy and physiology and diseases of the urinary/renal system:

- Rennin angiotensin aldosterone system (RAAS) in relation to homeostasis, hypertension heart failure and prescribed medications
- Nephritic syndrome, acute tubular necrosis
- Renal colic
- Acute and chronic renal failure/end stage renal disease

Review of the anatomy and physiology and diseases of the endocrine system:

- Disease of the pituitary gland
- Disease of the thyroid gland
- Disease of the pancreas (acute and chronic pancreatitis)
- Disease of the adrenal gland

Review of the anatomy and physiology and diseases of the blood:

- Diseases of the red blood cells e.g. sickle cell crisis, beta-thalassaemia
- Anaemia causes and presentation
- Diseases of the white blood cells
- Disorders of coagulation

Management of vulnerable patients

HCPC Standards of Conduct, Performance and Ethics

HCPC Standards of Proficiency

Pharmacological interventions

Demonstrate:

- Respiratory examination
- Cardiovascular examination
- Central nervous system examination
- Abdominal assessment
- Musculoskeletal examination
- History taking (medical model)
- Patient clerking with use of appropriate terminology
- Patient safety netting, pathways
- Offering differential diagnosis
- Making appropriate patient disposition
- Undertaking a range of clinical investigations and interpreting the findings
- Reviewing possible safeguarding issues
- Use of clinical decision tools

Use of electronic formats and decision support software in patient assessment

Palliative and End of Life Care (EOLC)

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AMBULANCE SERVICE NETWORK NHS CONFEDERATION (2010) *Implementing Trauma Systems: Key Issues for the NHS*, London: The NHS Confederation.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed., Maidenhead: Open University Press.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2013). *Paramedic Care: Pearson New International Edition: Principles and Practice, Volume 3*, New Jersey: Pearson/Brady/ Prentice Hall.

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

CHAN, T., BRADY, W., HARRIGAN, R., ORNATO, J. and ROSEN, P. (2005) *ECG in Emergency Medicine and Acute Care*, St. Louis, USA: Elsevier/Mosby.

DOUGLAS, G., NICOL, F. and ROBERTSON, C. (2005) *Macleod's Clinical Examination*, 11th Ed., Edinburgh: Churchill, Livingstone.

GALBRAITH, A., BULLOCK, A., MANIAS, E., HUNT, B. and RICHARDS, A. (2007) *Fundamentals of Pharmacology*, London: Pearson.

GOULD, B.E. (2006) *Pathophysiology for the Health Professions*. London: W. B. Saunders.

HAWLEY, G. (2007) *Ethics in Clinical Practice: An Inter-Professional Approach*, London, Pearson.

HERLIHY, B. and MAEBINS, N. K. (2002) *Human Body in Health and Illness*, 2nd Ed., London: W. B. Saunders.

LUMB A. (2010) *Nunn's Applied Respiratory Physiology*, 7th Ed., Italy: Butterworth Heinemann.

LYNN, S. and HUTCHINSON, J. (2007) *Bates' Guide to Physical Examination and History Taking*, 9th Ed., London: Lippincott Williams & Wilkins.

McFADDEN, R. (2009) *Introducing Pharmacology for Nursing and Healthcare*, London: Pearson.

MOORE, K., DALLEY, A. and AGUR, A. (2010) *Clinically Oriented Anatomy*, 6th Ed., London: Lippincott Williams & Wilkins.

PHALEN, T. and AEHLERT, B. (2006) *The 12-lead ECG in Acute Coronary Syndromes*, 2nd Ed., St. Louis, USA: Elsevier/Mosby.

- POOLER, A. (2011) *An Introduction to Evidence-based Practice in Nursing and Healthcare*, London: Pearson.
- PORTH, C. (2004) *Pathophysiology: Concepts of Altered Health States*, 7th Ed., New York: Lippincott.
- PRICE, P., FOSTER, J., SCULLION, J. and FREEMAN, D. (2004) *Asthma and COPD*, Edinburgh: Churchill Livingstone.
- REES, J. and KANABAR, D. (2010) *ABC of Asthma*, 6th Ed., Oxford: Blackwell Publishing.
- WEIR-HUGHES, D. (2011) *Clinical Leadership from A to Z*, London: Pearson.

Online resources

National Institute for Health and Clinical Excellence: <http://guidance.nice.org.uk>

Patient: <http://www.patient.co.uk>

Age UK: <http://www.ageuk.org.uk>

Nursing and Midwifery Council: <http://www.nmc-uk.org/Publications/Guidance/>

Health and Safety Executive guidance: <http://www.hse.gov.uk/slips/step/index.htm>

NHS guidance: <http://www.nhs.uk/Conditions/Falls/Pages/Prevention.aspx>

Dying Matters: <http://www.dyingmatters.org/>

National End of Life Care Intelligence Network: <http://www.endoflifecare-intelligence.org.uk/home>

NHS guidance: <http://www.nhs.uk/conditions/Self-injury/Pages/Introduction.aspx>

UK Sepsis: <http://www.uksepsis.org>

The UK Sepsis Trust: <http://sepsistrust.org>

Surviving Sepsis Campaign: <http://www.survivingsepsis.org>

International Sepsis Forum: <http://sepsisforum.org>

Unit 8: Pre-Hospital Paediatric Management

Unit level	5
Unit code	T/615/1091
Credit value	15

Aims

This unit builds on skills and knowledge learned during Level 4 studies. Although it is a separate unit, it draws on previous course learning regarding the young patient. The focus is specifically on the assessment and treatment of paediatric patients and identifying why this patient group may require specialist skills, knowledge and behaviours from healthcare professionals.

This unit provides an overview of the whole care of a young person, including an understanding of their development, needs and issues. As well as clinical presentations, pathophysiology and relevant management and treatment strategies, the care of the young person with chronic illness and social needs are explored. This unit also identifies the key social, legal and emotional requirements of working with paediatric patients, their caregivers, peers and other health and social providers.

Learning Outcomes

On completion of the unit, students will be able to:

- 1 justify learned theory and demonstrate the ability to use robust and valid evidence in assessing and managing young patients;
- 2 identify the legal and ethical boundaries and requirements including those of the inter-disciplinary team, when dealing with a young person, and the related HCPC Standards of Conduct, Performance and Ethics;
- 3 demonstrate adapted communication skills and the differentiated clinical skills of assessment required when managing a paediatric patient;
- 4 critically reflect on care provided for the paediatric patient in the light of evidence-based and inter-professional working healthcare practice.

Learning and Teaching Methods

This unit is taught through a range of mechanisms but follows the pedagogic model of online learning centred around a weekly case scenario complemented by three two-day face-to-face workshops in the partner provider settings. This learning method is intended to allow the busy learner the opportunity to either engage with peers and the facilitator at a set time in a virtual environment, or at a time more suitable for the learner working shifts. Learning materials are included as a comprehensive reading list and online learning documents. This, along with time in practice placement in a paediatric primary or secondary care setting, is intended to provide the learner with a greater understanding and appreciation of the young patient. The student will be able to apply the theory and practice skills in both simulated and work-based situations.

Assessment Strategy (Indicative Assessment)

There will be opportunities for students to undertake formative assessment on their knowledge of paediatrics in the form of online MCQs, simulation and online discussion forums (LOs 1–4). Feedback on clinical skills will be provided during clinical skill laboratory time, mini Clinical Evaluation Exercise (mini-CEX) and clinical placements (LOs 1–4).

The summative assessment for this unit is threefold. First, there is a case study based on a given paediatric patient presentation. The student will outline the assessment, management and treatment of the presentation in the wider healthcare context (LOs 1, 2 and 3). Second, a reflective account of an actual paediatric patient exposure will evidence the students' ability to correlate practice and theory and demonstrate their ability to learn from critical incidents, consider their own value base and its influence on patient care, and engage in professional development planning (LOs 2 and 4). Finally, there will be an OSCE examination, which is marked as pass/fail.

Summative Assessment

Case study	1500 words	50%
Reflective account of practice	1000 words (approx.)	50%
OSCE	1 hour	pass/fail

Indicative Content

Child and young person development including social, emotional and education development

Inter-personal communication skills (age specific)

Adolescence and transition

Bullying, self-harm and suicide

Social exclusion, including young people's groups, disability, LGBTQ

Substance misuse

Legal and ethical implications of consent and governance in relation to children
HCPC Standards of Conduct, Performance and Ethics
HCPC Standards of Proficiency
Recognition of 'red flags' in paediatric patients
Referral, including Paediatric Intensive Care Unit (PICU), minor injury, ED, social care
Common presentations of young patients
Anatomical and physiological differences of children and young people
Pharmacological interventions for children and young people
Assessment and management of paediatric patients with common medical conditions and traumatic injuries
Clinical interventions for children (including intraosseous)
Paediatric physiological responses to illness and injury
Chronic conditions of childhood (including cystic fibrosis, chronic renal disease, type I diabetes and childhood cancer)
Childhood illness and immunisation (including diphtheria, tetanus and pertussis, haemophilus-influenza type B, meningococcal group C, poliomyelitis, measles, mumps and rubella and tuberculosis)
Safeguarding children (including child maltreatment, physical features and clinical presentations and neglect)
Paediatric advanced life support
Communication and interviewing skills with children and their parents/carers
Multi-professional working
Use relevant evidence based healthcare-locating, retrieving and judging information to make clinical decisions for paediatric patients

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care*, updated 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

BAGLEY, C. and RAMSAY, R. (1997) *Suicidal Behaviour in Adolescents and Adults*, Aldershot: Ashgate.

BANNON, M.J. and CARTER, Y. (2007) *Practical Paediatric Problems in Primary Care*, Oxford: Oxford University Press.

- BERESFORD, B. (2007) 'On The Road to Nowhere? Young Disabled People and Transition', *Child Care, Health and Development*, 30(6), pp. 581–587.
- BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2012) *Paramedic Care: Principles and Practice: Introduction to Paramedicine*, 4th Ed., New Jersey: Prentice Hall.
- BOLTON, G. (2010) *Reflective Practice: Writing and Professional Development*. London: Sage.
- BRITISH MEDICAL ASSOCIATION (2004) *Medical Ethics Today: The BMA's Handbook of Ethics and Law*, London: BMJ Books.
- CAROLINE, N.L., ELLING, B. and POLLACK, A.N. (2013) *Nancy Caroline's Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett Publishers.
- COHEN, B.J. (2005) *Memmler's The Human Body in Health and Disease*, 10th Ed., Baltimore, MD: Lippincott, Williams & Wilkins.
- DEPARTMENT OF HEALTH AND THE HOME OFFICE (2003) *The Victoria Climbié Inquiry, Report of an Inquiry by Lord Laming*, Cm 5730, London: HMSO (and also <http://www.publications.parliament.uk/pa/cm200203/cmselect/cmhealth/570/570.pdf> and <http://www.publications.parliament.uk/pa/cm200203/cmselect/cmhealth/570/570.pdf>)
- DONALDSON, M. (1984) *Children's Minds*, London: Fontana.
- EDUCATION, AUDIOVISUAL and CULTURE EXECUTIVE AGENCY (EACEA) (2013) 'Youth Social Exclusion and Lessons from Youth Work: Evidence from Literature and Surveys', European Union.
- ELLISTON, S. (2007) *The Best Interests of the Child in Healthcare*, Abingdon: Routledge & Cavendish.
- MARIEB, E.N. and HOEHN, K. (2007) *Human Anatomy and Physiology*, 7th Ed., San Francisco: Pearson Benjamin Cummings.
- MCCANCE, K.L. and HEUTHER, S.E. (2002) *The Biologic Basis for Disease in Adults and Children*, 4th Ed., St Louis, MI: Mosby, Inc.
- MUNRO, E. (2006) *Child Protection*, London: Sage.
- NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2004) *Diagnosis and Management of Type I Diabetes in Children, Young People and Adults*, London: NICE.
- NATIONAL INSTITUTE FOR HEALTH AND CLINICAL EXCELLENCE (2009) *When to suspect child maltreatment*, London: NICE.
- ROYAL COLLEGE OF PAEDIATRICS AND CHILD HEALTH (2002) *Good Medical Practice in Paediatrics*, London: Royal College of Paediatrics and Child Health.
- SANDERS, M. (2004) *Mosby's Paramedic Textbook*, 4th Ed., London: Jones and Bartlett.
- SATTERLY, D. (1987) 'Piaget and Education' in R.L. Gregory (Ed.) *The Oxford Companion to the Mind*, Oxford: Oxford University Press.
- SCHÖN, D. (1983) *The Reflective Practitioner: How Professionals Think in Action*, New York, NY: Basic Books.
- STAM, H., HARTMAN, E.E., DEURLOO, J.A. et al. (2006) 'Young Adult Patients with a History of Pediatric Disease: Impact on Course of Life and Transition into Adulthood', *Journal of Adolescent Health*, 39, pp. 4–13.

VYGOTSKY, L.S. (1962) *Thought and Language*, Cambridge, MA: MIT Press.

VYGOTSKY, L.S. (1978) *Mind and Society: The Development of Higher Psychological Processes*, Cambridge, MA: Harvard University Press.

Electronic resources

European Union Report, Youth Social Exclusion and lesson from youth work:
http://eacea.ec.europa.eu/youth/tools/documents/social_exclusion_and_youth_work.pdf

National Institute for Health and Care Excellence, Child Maltreatment:
<http://www.nice.org.uk/nicemedia/pdf/CG89FullGuideline.pdf>

National Society for the Prevention of Cruelty to Children: <http://www.nspcc.org.uk>

Nursing Times: <http://www.nursingtimes.net/whats-new-in-nursing/childhood-immunisations/1994638.article>

British National Formulary for Children: http://www.bnf.org/bnf/org_450055.htm

Journal of Pediatric Nursing: <http://www.pediatricnursing.org>

Nursing Children and Young People Journal:
<http://nursingchildrenandyoungpeople.rcnpublishing.co.uk>

Paediatrics and Child Health: <http://www.paediatricsandchildhealthjournal.co.uk>

Paediatrics Today: <http://www.paediatricstoday.com>

Stonewall. Supporting All Young People:
http://www.stonewall.org.uk/at_school/education_for_all/secondary_schools/supporting_all/default.asp

SCOPE. Young Disabled People: <http://www.scope.org.uk/help-and-information/young-disabled-people>
<http://www.scope.org.uk/help-and-information/young-disabled-people>

UN Convention on the Rights of the Child (1990):
www.unicef.org/crc/crc.htm
<http://www.unicef.org/crc/crc.htm>

Unit 9: Pre-hospital Management of Obstetric and Neonatal Patients

Unit level	5
Unit code	Y/615/1097
Credit value	15

Aims

The aim of the unit is for the students to gain an understanding in the normal and abnormal aspects of pregnancy and adapt assessment techniques and application of skills required for that of a patient during pregnancy, with consideration to haemorrhage during pregnancy and ectopic pregnancy.

It will also provide the understanding and the practical skills required in the event of normal delivery, delivery and postpartum complications and care of the neonate. Common gynaecological presentations and processes will also be reviewed.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 interpret the clinical presentation of a pregnant patient with consideration to the physiological changes that might influence management;
- 2 effectively manage a patient with complications in pregnancy and delivery and critically analyse intervention options available;
- 3 demonstrate the appropriate management of a 'normal' delivery and demonstrate initial care of the neonate;
- 4 recognise the early indications of haemorrhage during pregnancy and manage accordingly, using the appropriate evidence base, and recognise early indications of a complicated birth and reflectively consider how to adapt the management accordingly;
- 5 identify common gynaecological conditions and demonstrate knowledge of usual gynaecological processes.

Learning and Teaching Methods

In this unit, students will encounter opportunities to learn from a variety of contexts where they will be facilitated, supported and assessed by relevant practitioners. Learning opportunities will include clinical skills workshops, simulated practice and specialist placement experiences to maternity units and other appropriate primary and secondary care settings. Lectures, seminars and small group work will also be facilitated.

The unit will have elements of directed and self-directed study supported by the OLE. There will also be student-led group presentations/micro-teaching sessions scheduled into this unit and possibly the opportunity to engage in health promotion activities with pregnant women out in the community.

Assessment Strategy (Indicative Assessment)

Formative assessment and feedback on performance in the role of student paramedic will take the form of OSCEs in simulated scenarios, peer assessment and online MCQs. These will be peer assessed.

The end of unit summative assessment is twofold. There is written piece to collect evidence through online searching of the bibliographic databases to produce an advice and guidance leaflet for other paramedic/healthcare students on normal pregnancy and childbirth/health promotion (LOs 1 and 3) within the context of their practice. There will be an unseen examination on gynaecological emergencies and complications of pregnancy, childbirth and the neonate (LOs 1, 2, 4 and 5).

In all assessment elements, the student will need to demonstrate the knowledge, understanding and reflection on practice against the HCPC criteria for a Level 5 Practitioner.

Summative Assessment

Information/health promotion leaflet	1500 words	50%
Unseen written examination	1 hour	50%

Indicative Content

Anatomy, physiology and pathophysiology of the pregnant woman and neonate

Management of labour

Complications of pregnancy and childbirth

Mal-presentations; breech, shoulder dystocia, cord prolapse

Eclampsia and pre-eclampsia

Ante-partum and post-partum haemorrhage

Ectopic pregnancy

Gynaecological presentations

Health promotion related to pregnancy and care of the newborn

Biomedical ethics and morality theories, rules and principles related to pregnancy and childbirth

HCPC Standards of Performance, Conduct and Ethics

HCPC Standards of Proficiency

Non-judgemental practice

Drugs used in labour and the puerperium

Infection prevention and control

Advanced life support techniques for neonatal and pregnant patients

Record keeping including APGAR scoring (Appearance (skin color); Pulse (heart rate); Grimace response (reflexes); Activity (muscle tone); Respiration (breathing rate and effort))

Aseptic technique

Patient assessment (obstetric)

Detailed gynaecological history taking

Assessment of the patient in labour

Delivery of the newborn in a variety of situations

Assessment and care of the neonate

Care of the family and supporters in a pregnancy situation

Evidence-based healthcare: locating, retrieving and judging information to make clinical decisions

Written presentation skills

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care update*, 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

FRASER, D.M. and COOPER, M.A. (Eds) (2009) *Myles Midwifery*, 15th Ed., London: Churchill Livingstone.

MONGA, A. and HOBBS, S. (2013) *Gynaecology by 10 Teachers*, London: Hodder and Stoughton.

O'REILLY, B., BOTTOMLY, C and RYMER, J. (2012) (*Pocket*) *Essentials of Obstetrics and Gynaecology*, London: Saunders Elsevier.

SYMONDS, E.S. and ARULKUMARAN, S. (2013) *Essential Obstetrics and Gynaecology*, 5th Ed., Edinburgh: Harcourt.

WINTER, C., CROFT, J., LAXTON, C., BARNFIELD, S. and DRAYCOTT, T. (2012) *PROMPT*, London: RCOG.

WOODWARD, V., BATES, K. and YOUNG, N. (2005) *Managing Childbirth Emergencies in Community Settings*, Hampshire: Palgrave MacMillan.

LEARNING RESOURCES

Midwives Information and Resource Service (MIDIRS): <https://www.midirs.org/>

NICE guidelines

Unit 10: Pre-hospital Trauma Management

Unit level	5
Unit code	H/615/1099
Credit value	15

Aims

The unit aims to build on knowledge and understanding acquired at Level 4 to develop skills, critical thinking and reflection in relation to trauma and major injuries encountered in paramedic practice.

The unit will develop the students' understanding of the mechanisms, injuries, treatments and outcomes of major trauma and the implications for effective and safe paramedic practice. It will enable students to develop their knowledge, skills and critical understanding of patient assessment and pre-hospital management in acute traumatic emergency situations.

The learning gained will further develop the ability to manage minor injury and follow the appropriate care pathways.

Learning Outcomes

Having completed this unit, students will be able to:

- 1 critically apply the theories of trauma, trauma care, and trauma management, including minor injuries in the context of paramedic practice;
- 2 effectively assess, treat and dispatch to the appropriate pathways including Major Trauma Units patients involved in traumatic injury;
- 3 appraise and implement a range of strategies to stabilise patients in acute traumatic emergency situations;
- 4 demonstrate the ability to make reasoned evidence-based decisions to assess, plan, implement and evaluate the total care of the trauma patient;
- 5 critically reflect upon their professional values and practices in order to ensure safe practice and improve patient care.

Learning and Teaching Methods

This unit will employ a range of teaching and learning strategies including: lectures, to gain knowledge and understanding of the subject; seminars, to develop understanding of the subject and the construction of reasoned arguments, building on personal beliefs and professional values; simulation, to practise clinical skills in a safe environment; online discussion and self-directed learning, in order to relate information from textbooks; using information technology to locate and retrieve information; case studies and practical skills sessions in clinical practice.

Use of Augmented Reality Simulation Training will be used to enhance the learning experience but should not replace real practical experience.

There will also be some inter-professional teaching with other related professions such as Doctors/British Association for Immediate Care (BASICS)/Trauma Doctors, Major Trauma Centres, Police, Fire and Rescue services, which reflects the nature of the paramedic role as part of a multi-disciplinary health service.

Assessment Strategy (Indicative Assessment)

The assessment for this unit will test knowledge, skills and professional attitudes across a range of mechanisms. There will be assessment of the students' knowledge of a range of presentations of trauma patients in the form of online MCQs (LOs 1–4).

Clinical skills including patient history taking, diagnostic and monitoring procedures will be assessed formatively during simulated practice, both in workshops and through technology supported clinical decision-making tools (LOs 1–3). The students' ability to locate and retrieve information to inform the clinical decision making on a range of clinical scenarios will be monitored throughout the unit.

Students' application of the knowledge, skills and professional attitudes in relation to dealing with a range of trauma presentations across the lifespan and in a range of environments in which paramedics' work will be tested through work-based assessment (LOs 1–4).

The unit will culminate in a written piece of work comprising a trauma patient case study (LOs 1–5) and a clinical examination (LO 1–4).

The OSCE is an essential component of the assessment process which carries with it a pass/fail mark. Students must pass this element of the assessment to pass the unit overall, as it carries no academic compensation.

Summative Assessment

Reflective case study	2500 words	100%
OSCE	1 hour	pass/fail

Indicative Content

New trauma networks

The trauma unit bypass tools

Traumatic injuries and emergencies

Spinal injury clinical decision-making tool

Assessment of the trauma patient using a structured approach

Mechanisms of injury and injury patterns

The recognition of major haemorrhage and the management of shock

Effective management and delegation of resources

Deployment and benefits of specialist assets including Doctors/British Association for Immediate Care (BASICS), Helicopter Emergency Service (HEMS), Hazardous Area Response Team (HART), Police, Fire and Rescue

The use of medicines and fluids in the management of trauma including the management of a patient in pain

Specialist understanding of pathology, care and management of the geriatric, paediatric obstetric traumatic patient

HCPC Standards of Conduct, Performance and Ethics

HCPC Standards of Proficiency

Compartment syndrome

Crush injuries

Minor injury including wound assessment and upper and lower limb assessment

Paramedic role in a major incident – Major Incident Declared?; Exact Location; Type of Incident; Hazards Present or Suspected; Access – routes that are safe to use; Number, type, severity of casualties; Emergency services present and those required (METHANE)

Safe parking protection

Health and safety and the use of protective equipment (PPE or Personal Protective Equipment)

Dynamic risk assessment

Ensure current methods are used for accurate scene situation report (sitrep) (SCENE) hospital pre-alert and Patient Clinical record keeping

Principles of verbal handover (the ATMIST pre-alert and handover system) – A - Age and other patient details; T – Time of incident (trauma) or onset (medical); M – Mechanism (trauma) or Medical complaint/history (medical); I – Injuries Sustained (trauma) or Investigations (medical); S – Signs; T – Treatment

Trauma primary/secondary survey

Stepwise airway management approach

Interventions in clinical presentations involving the bodies systems

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care update*, 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

BLUMEN, I and UCAN SAFETY COMMITTEE (2001) *A Safety Review and Risk Assessment in Air Medical Transport*, Air Medical Physician Association.

CAROLINE, N. (2013) *Emergency Care in the Streets*, 7th Ed., London: Jones and Bartlett.

- GREGORY, P. and MURSELL, I. (2010) *Manual of Clinical Paramedic Procedures*, Singapore: Wiley-Blackwell Publishing.
- HUDAK, C.M., GALLO, B.M. and GONCE-MORTON, P. (1998) *Critical Care Nursing: A Holistic Approach*, 7th Ed., Philadelphia PA: Lippincott Williams and Wilkins.
- NAEMT (2011) *PHTLS: Prehospital Trauma Life Support*, 7th Ed., Bridgewater: Jones and Bartlett.
- PURCELL, D. (2010) *Minor Injuries: A Clinical Guide*, 2nd Ed., London: Churchill Livingstone.
- REINHART, R.O. (1996) *Basic Flight Physiology*, 2nd Ed., New York: McGraw-Hill.
- SKINNER, D.V and DRISCOLL, P.A. (2013) *ABC of Major Trauma*, 4th Ed., Oxford: Wiley Blackwell.

Useful resources

- BRITISH NATIONAL FORMULARY (www.bnf.org/)
- HEALTHCARE FOR LONDON (2007) 'A Framework for action', London.
- HEALTHCARE FOR LONDON (2009) 'The Shape of Things to Come – Developing high quality major trauma and stroke services in London', London.
- THE INTERCOLLEGIATE GROUP ON TRAUMA STANDARDS (2009) *Regional Trauma Systems: An Interim Guide for Commissioners*, RCSENG: Professional Standards and Regulation.
- Major Trauma Outcome Study (MTOS) (1992) 'The case for change'.
- NATIONAL AUDIT OFFICE (2010) *Major Trauma in England*.
- NCEPOD report (2007) *Trauma: Who Cares? A National Confidential Enquiry into Patient Outcomes and Death*.
- NHS CLINICAL ADVISORY GROUPS (2010) 'Regional Networks on Major Trauma: NHS Clinical Advisory Groups' report'.
- ROYAL COLLEGE OF SURGEONS (1988) 'Report of the working party on the management of patients with major injury', London.
- ROYAL COLLEGE OF SURGEONS (1999) 'Report of the working party on the management of patients with head injuries', London.
- ROYAL COLLEGE OF SURGEONS (2009) 'Regional Trauma Systems: An interim guide for commissioners: An inter-collegiate group on trauma standards'.
- ROYAL COLLEGE OF SURGEONS AND THE BRITISH ORTHOPAEDIC ASSOCIATION (2010) 'Better care for the severely injured: A joint report from the Royal College of Surgeons and the British Orthopaedic Association'.
- ROYAL COLLEGE OF SURGEONS OF ENGLAND AND THE BRITISH ORTHOPAEDIC SOCIETY (2000) 'Better care for the severely injured', London.

Unit 11: Evidence-based Practice

Unit level	5
Unit code	R/615/1101
Credit value	15

Aims

This unit is designed to develop students' capacity to identify, critique and implement the best available evidence to inform clinical decision making. This unit supports the paramedic to develop their portfolio by encouraging students to use the higher level cognitive skills of analysis, critical reflection, synthesis, creativity and evaluation to evidence their paramedic practice at Level 5 for HCPC registration.

The intention of this unit is that students start to develop a critical understanding of best practice and enhance their capacity for critical reflection on their own practice and that of others, developing their portfolio of professional development as a source of evidence.

Learning Outcomes

By the end of the unit, students will be able to:

- 1 identify and define a problem arising from their professional practice and utilise a range of sources of evidence, which inform practice-based learning;
- 2 undertake a systematic search of the literature, specifically bibliographic databases on a given condition or issue of practice;
- 3 discuss a range of methods of enquiry to solve problems associated with paramedic practice;
- 4 critically appraise a selection of evidence of the management of specific clinical conditions in order to inform clinical decision making within the scope of practice;
- 5 apply an identified reflective model to analyse and evaluate own learning from the practice-based activities and demonstrate an understanding of how the maintenance of continuing professional development, HCPC Standards of Proficiency and Standards of Conduct, Performance and Ethics is a requirement for professional registration and essential for safe practice and the protection of the public.

Teaching and Learning Methods

Lectures and seminars (traditional or online) will provide the scope for a critical examination of different approaches to research design, data collection, analysis and presentation, with due consideration to issues related to validity, reliability and ethics. Practical sessions will support the students to search for and utilise online resources, to find the latest research on a given clinical presentation or aspect of practice.

The unit will have an associated 'journal club', where students will bring interesting articles to the class or post online for discussion and critique. Students will consider best practice in the light of their own and others' practice as part of their paramedic placement and utilise evidence found to inform clinical decision making.

Assessment Strategy (Indicative Assessment)

The journal club provides a medium for students to gain peer and tutor feedback on their interpretation of the clinical evidence around a range of conditions and issues of practice. In addition, students will do a brief presentation of their 'question' with a brief précis of some literature on the subject and thinking around methodology/data collection, providing opportunity for discussion and feedback to improve.

An indicative formative assessment could be a short, seen examination in the form of a selection of journal articles on a given subject to inform their decision making on a case scenario (unseen) (LO 4). The articles would be made available online two weeks before the assessment and then a workshop session would enable the students to work in small groups to use the articles to solve a case scenario by making clinical decisions based on the evidence. This would also develop intra-professional team working and sharing of good practice.

The main end of unit assessment will be in the form of a 3000-word research review. The first part (approx. 650 words) should outline the strategy for exploring an area of interest relevant to paramedic practice. The following section (approx. 2000 words) should critically appraise three to five of the research articles gleaned from a search of bibliographic databases. The final section (approx. 350 words) should provide a brief plan for applying relevant evidence to their ambulance service setting (LOs 1–5).

Summative Assessment

Mini systematic review	3000 words	100%
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Indicative Content

Research paradigms and their underlying assumptions

Root cause analysis and improving services

What is 'evidence'; searching the literature

Research hierarchy

Database searching

Systematic reviews

Cochrane database
Undertaking an online evidence search
PICO/PIO framework
Developing a facet analysis and search strategy
Questioning methodology
Critiquing qualitative and quantitative research evidence
Research evidence validity
Synthesising information to make informed choices
When and how research evidence should inform practice
Implementing change in practice using change management theories
HCPC standards of proficiency

Indicative Learning Resources

Key texts

ASSOCIATION OF AMBULANCE CHIEF EXECUTIVES (2013) *UK Ambulance Services Clinical Practice Guidelines*, Class Publishing.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2014) *Essentials of Paramedic Care update*, 2nd Ed., Pearson New international Edition (soft back copy).

GARRETT, L., CLARKE, A., SHAHIB, P. (2011) *Skills for Nursing and Healthcare Students – Study Skills, Maths and Science*, 2nd Ed., Pearson Education.

Additional texts

AVEYARD, H. (2010) *Doing a Literature Review in Health and Social Care: A Practical Guide*, 2nd Ed., Maidenhead: Open University Press.

AVEYARD, H., SHARP, P and WOOLLIAMS, M. (2011) *A Beginner's Guide to Critical Thinking and Writing in Health and Social Care*. Maidenhead: Open University Press.

AVEYARD, H. and SHARP, P (2009) *A Beginner's Guide to Evidence Based Practice in Health and Social Care*, Maidenhead: Open University Press.

BLEDSON, B.E., PORTER, R.S. and CHERRY, R.A. (2012) *Paramedic Care: Principles and Practice, Volume 1: Introduction to Paramedicine*, 4th Ed., New Jersey: Prentice Hall.

BLABER, A. (2012) *Foundations for Paramedic Practice: A Theoretical Perspective*, 2nd Ed., Maidenhead: Open University Press.

BOLTON, G. (2010) *Reflective Practice: Writing and Professional Development*, London: Sage.

COTTRELL, S. (2011) *Critical Thinking Skills: Developing Effective Analysis and Argument*, Hampshire: Palgrave Macmillan.

DENSCOMBE, M. (2003) *The Good Research Guide: For Small-Scale Social Research Projects*, 2nd Ed., Maidenhead: Open University Press.

- DOLOWITZ, D.P., BUCKLER, S. and SWEENEY, R. (2008) *Researching Online (Palgrave Study Skills)*, Hampshire: Palgrave Macmillan.
- FAIRBAIRN, G. and WINCH, C. (2012) *Reading, Writing and Reasoning: A Guide for Students*, Buckingham: Open University Press.
- FIELD, A. (2013) *Discovering Statistics Using SPSS (Introducing Statistical Methods series)*, 4th Ed., London: Sage Publications Ltd. (Associated website: <http://www.statisticshell.com/html/dsus.html>)
- GOMM, R. and DAVIES, C. (2000) *Using Evidence in Health and Social Care*, Milton Keynes: Open University Press.
- GREENHALGH, T. (2010) *How to Read a Paper: The Basics of Evidence Based Medicine*, 4th Ed. Chichester: Wiley-Blackwell.
- GRIFFITHS, P. and MOONEY, G. (2012) *The Paramedic's Guide to Research: An Introduction*, Maidenhead: Open University Press.
- JONES-DEVITT, S and SMITH, L (2007) *Critical Thinking in Health and Social Care*, London: Sage.
- McSHERRY, R. (2011) *Clinical Governance: A Guide to Implementation for Healthcare Professionals*, 3rd Ed., Chichester: Wiley-Blackwell
- MELNYK, B.M. and FINEOUT-OVERHOLT, E. (2005) (Eds) *Evidence-Based Practice in Nursing and Healthcare*, London: Lippincott, Williams & Wilkins.
- SCHON, D. (1983) *The Reflective Practitioner: How Professionals Think in Action?* Basic Books.
- SIMON, S. (2006) *Statistical Evidence in Medical Trials: What Do The Data Really Tell Us?* Oxford: Oxford University Press.
- YIN, R. (2003) *Case Study Research: Design and Methods*, 3rd Ed., London: Sage.

Journals

British Educational Research Journal

British Journal of Clinical Governance

British Journal of Nursing

British Journal of Sociology

British Medical Journal

Community Care

Emergency Medicine Journal

Evidenced-based Medicine

Evidence-based Nursing

Journal of Paramedic Practice, Care and Health

Journal of Inter-professional Care

Nursing Standard

Nursing Times

Which? Health

Electronic resources

Department of Health: <https://www.gov.uk/government/organisations/department-of-health>

National Institute for Clinical Excellence: <https://www.nice.org.uk/>

National Service Frameworks:

http://www.dbh.nhs.uk/about_us/board_of_directors/whos_who/Transformation/strategic_service_development/national_service_frameworks/default.aspx

NHS Choices: <http://www.nhs.uk/pages/home.aspx>

NHS Evidence Library: <https://www.evidence.nhs.uk/>

Care Quality Commission: <http://www.cqc.org.uk/>

Monitor: <https://www.gov.uk/government/organisations/monitor>

Taking Healthcare to the Patient

Appendix 1: Matrix mapping of units against learning outcomes

Pearson BTEC Level 4 Certificate in Emergency and Unscheduled Care Units

Units		Programme Learning Outcomes																												
		K 1	K 2	K 3	K 4	K 5	K 6	K 7	K 8	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	P 1	P 2	P 3	P 4	P 5	G 1	G 2	G 3	G 4	G 5	G 6	G 7	G 8
Level 4	1 Clinical Practice Placement	x			x	x	x		x	x	x	x				x	x	x	x		x		x	x			x		x	
	2 Foundations of Paramedic Practice	x	x	x	x		x	x	x	x	x		x		x	x	x	x	x	x	x		x	x			x	x	x	x
	3 Foundations of Life Sciences	x	x		x	x				x									x								x			
	4 Foundations of Emergency and Unscheduled Trauma Care	x	x			x				x		x		x			x	x		x	x		x	x		x				
	5 Contemporary Issues in Healthcare Practice			x					x	x			x		x	x	x	x	x				x			x			x	

Pearson BTEC Level 5 Diploma in Paramedic Science Units

Units		Programme Learning Outcomes																													
		K 1	K 2	K 3	K 4	K 5	K 6	K 7	K 8	C 1	C 2	C 3	C 4	C 5	C 6	C 7	C 8	P 1	P 2	P 3	P 4	P 5	G 1	G 2	G 3	G 4	G 5	G 6	G 7	G 8	
Level 5	6 Paramedic Practice Placement				x	x	x		x	x	x	x				x	x	x	x		x		x	x			x	x			
	7 Developing Paramedic Practice		x		x		x	x	x	x		x	x	x		x	x	x	x	x	x		x	x	x	x	x	x	x		
	8 Pre-hospital Paediatric Management	x	x	x	x		x	x	x	x	x	x			x			x	x	x						x					
	9 Pre-hospital Management of Obstetric and Neonatal Patients	x	x	x	x				x		x		x					x	x	x			x				x				
	10 Pre-hospital Trauma Management		x						x				x						x	x	x	x			x	x	x				x
	11 Evidence-based Practice			x					x	x		x		x	x	x		x			x						x		x		x

Appendix 2: Learning, teaching and assessment strategy mapped against learning outcomes

Knowledge and understanding	Teaching and learning strategies and methods
<p>K1 knowledge and understanding of the key terminology, nomenclature, classification systems, conventions and units that are central to paramedic science;</p> <p>K2 critical understanding of the life sciences and human growth and development across the lifespan which determine the anatomy and physiology of the human body, and their association with health, disease, disorder, dysfunction and pathology;</p> <p>K3 critical understanding of the behavioural sciences that aid understanding of the psychological, social and political factors that influence an individual in health and illness and incorporate this into paramedic practice;</p> <p>K4 systematic understanding of the clinical sciences that underpin effective and safe clinical reasoning and clinical assessment skills that form the basis of patient assessment and therapeutic interventions that are within the scope of practice as a paramedic;</p> <p>K5 thorough knowledge and understanding of the physical sciences that underpin the effective, safe and appropriate use of resources such as equipment and therapeutics in the practice environment;</p> <p>K6 critical understanding of the ethical, legal, professional, political and operational framework within which paramedics practice, including the HCPC's Standards of Conduct, Performance and Ethics (SCPEs);</p> <p>K7 critical understanding of the appropriate methods to interpret and analyse scientific data and information in defined contexts and contribute to the evidence base that underpins paramedic practice;</p> <p>K8 keen awareness of the concepts and principles of CPD, staff development, leadership, clinical supervision, mentorship, reflective practice as methods and strategies for personal and people development and in the context of clinical governance.</p>	<p>Core knowledge and understanding is acquired via:</p> <ul style="list-style-type: none"> • Lectures • Online tutorials • Independent study activities as prescribed online • Prescribed reading • Clinical workshops which enable the students to translate the underlying theory into practice and thereby gain a greater understanding of it • Student-managed learning, use of the library and the internet <p>Assessment</p> <p>Knowledge and understanding is assessed via a combination of different modes of assessment including:</p> <ul style="list-style-type: none"> • Examination (short answer and MCQ tests) • Objectified Structured Clinical Examination (OSCEs) • Direct observation and appraisal of clinical practice elements during placement • Written coursework including case-based reports and critical reflections • Oral and poster presentations

Intellectual and cognitive skills

- C1 apply knowledge and understanding of essential concepts, principles and theories relating to the paramedic sciences in defined contexts;
- C2 demonstrate a commitment to provide high quality patient-centred care, adopting the ethical codes of paramedic practice;
- C3 critically analyse incidents of practice and solve problems using appropriate guidelines, evidence and experience derived from reflective practice;
- C4 reflect critically on their own performance, practice and professional accountability/self-regulation and the need to work within the framework set out in the standards of conduct and proficiency for paramedic practice and within the context of patient-centred care;
- C5 evaluate the changing and diverse context of paramedic and ambulance service provision participating in the continuation and development of the profession;
- C6 discuss the legal responsibilities and ethical considerations of professional practice, acknowledging the boundaries of professional competence in a changing healthcare environment;
- C7 identify personal and professional goals for continuing professional development in order to enhance competence to practice and maintain registered professional status;
- C8 synthesise knowledge and evaluate research evidence to support practice in the clinical setting, recognising the significance of clinical effectiveness in the delivery of paramedic practice.

Teaching and learning strategies and methods

Intellectual and cognitive skills are acquired via:

- Online tutorials
- Independent study activities as prescribed online
- Prescribed reading
- Clinical workshops which enable the students to translate the underlying theory into practice and thereby gain a greater understanding of it
- Research projects
- Student-managed learning, use of the library and the internet

Learning to apply these thinking skills is encouraged by a problem solving and reflective approach in teaching and learning activities.

Assessment

Formative assessment is conducted within online and workshop discussion forums and during clinical placements.

Intellectual and cognitive skills are summatively assessed within written coursework (including reflective accounts), case studies, poster presentations and Objective Structured Clinical Examinations.

<p>Professional skills</p> <p>P1 assess patients safely and effectively, taking into account physical, psychological and socio-cultural needs;</p> <p>P2 construct specific, safe and effective treatment/care plans for patients, accurate keeping of records, using problem-solving and clinical reasoning skills;</p> <p>P3 appraise available evidence in order to choose and evaluate treatment</p> <p>P4 triage patients and prioritise care, including the use of priority dispatch systems, telephone and face-to-face clinical decision support systems;</p> <p>P5 provide foundational levels of mentorship, coaching and guidance of peers and students.</p>	<p>Teaching and learning strategies and methods</p> <p>Practical and professional skills are acquired through practical sessions, simulation and through the work placement elements of the units with methods such as:</p> <ul style="list-style-type: none"> • Clinical workshops and internet discussions • Supervised practice • Online tutorials • Student-managed learning, especially work-based • Case study analysis • Personal and professional development planning • Student-initiated discussions with mentor and colleagues <p>Assessment</p> <p>Professional skills will be summatively assessed primarily via OSCE, case studies, end of placement summary reports and competency outcomes within the clinical practice skills record (CPSR).</p> <p>Formative assessment will also be carried out in each placement within the CPSR and during online and class discussions.</p>
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General Transferable Skills (ATS)

By the end of the programme of study, students will be able to:

- G 1 communicate effectively, both orally and in writing with a variety of audiences including all members of the multi-professional team and across a wide variety of patient groups;
- G2 work effectively within a multi-professional team;
- G3 demonstrate effective leadership, team management, project management and self-management skills including priority setting (where and when appropriate);
- G4 locate, receive and respond to a variety of information sources (e.g. textual, numerical, graphical and computer-based) in defined contexts;
- G5 utilise a range of study skills to manage their own learning and begin to work independently in a way appropriate for continuing personal and professional development;
- G6 demonstrate skills of analysis and ability to use methods of enquiry to collect and interpret data in order to provide information that would inform or benefit practice.
- G7 Demonstrate strong interpersonal skills, including effective listening and oral communication skills, as well as the associated ability to persuade, present and negotiate.
- G8 Work with resilience under pressure, producing set outputs within a definite time-limited period with minimal access to external resources.

Teaching and learning strategies and methods

General Transferable Skills are developed via the skills-based units in Level 4. In addition, units at all levels encourage communication skills, inter-professional working, study skills, research and IT skills which are learnt via:

- Online tutorials
- Online activities such as discussions in which they interact with other students
- Simulation
- Clinical workshops
- Reflection on placement activities
- Research projects and independent learning activities

Assessment

General transferable skills will be assessed through all unit assignments.

Assessments will be relevant to the unit undertaken and related to the generic outcome competencies as laid down by the HCPC and the College of Paramedics (COP)

Appendix 3: Grading criteria for written work

Criteria for written work – Level 4 (generic)

80% +	Demonstrates substantial intellectual self-confidence and independent judgement. Shows a rigorous understanding of the topic and can apply concepts and principles of paramedic science. Incisive argument is sustained throughout. Organises material imaginatively and systematically. Makes critical use of a wide range of general and scholarly texts. Shows impressive qualitative and/or quantitative ability where appropriate. Writing is polished, accurate and fluent. Presentation uses appropriate scholarly conventions.
70-79%	Demonstrates intellectual self-confidence and independent judgement. Shows a rigorous understanding of the topic and can apply concepts and principles health and social care. Incisive argument is sustained throughout. Organises material imaginatively and systematically. Makes critical use of a range of general and scholarly texts. Shows impressive qualitative and quantitative ability where appropriate. Writing is polished, accurate and fluent. Presentation uses appropriate scholarly conventions.
60-69%	Demonstrates a rigorous understanding of the topic. Understands and applies concepts and principles associated with the field of paramedic science. Argument is sustained, focussing consistently on the title/question throughout. Organises material systematically, based around the argument presented. Makes critical use of appropriate general texts and scholarly literature. Shows qualitative and quantitative ability where appropriate. Writing is accurate and fluent. Presentation uses appropriate scholarly conventions.
50-59%	Demonstrates a good understanding of the topic. Understands and applies concepts and principles associated with the field of paramedic science. Argument is sustained, but could be developed further in places. Organises material effectively in relation to the set title/question. Makes critical use of appropriate general texts and scholarly literature. Shows qualitative and quantitative ability where appropriate. Writing is generally accurate, but shows occasional errors of grammar, syntax and spelling.
40-49%	Demonstrates an understanding of the topic. Shows knowledge of the concepts and principles associated with the field of paramedic science. Shows acquisition of coherent and relevant knowledge. Argument is presented, but lacks depth, rigour and complexity. Engages with appropriate general texts and scholarly literature. Shows reasonable qualitative and quantitative ability where appropriate. Writing often lacks fluency, clarity and precision and is sometimes marred by errors of grammar, syntax and spelling.
Fail 30-39%	Misunderstands or is confused about many aspects of the topic. Presents some appropriate knowledge and evidence base of paramedic science, but handles these superficially. Argument is present, but is too often insufficient or incoherent. No sustained engagement with the set title/question. Has used some appropriate texts, but does not use a sufficient range of scholarly literature at this level. Writing is marred by continual errors of grammar, syntax and spelling. Presentation is poor and ignores appropriate scholarly conventions.
Poor Fail 0-29%	Misunderstands or is confused about most aspects of the topic. Presents some appropriate knowledge and evidence base of the field of paramedic science, but handles these very superficially. No sustained argument is presented. Written work may be very brief and/or unfinished. Very little engagement with the set title/question. Has used inappropriate texts for certificate level work. Writing is marred by constant errors of grammar, syntax and spelling. Presentation is poor and ignores appropriate scholarly conventions.

Criteria for written work – level 5 (generic)

80% +	Demonstrates substantial intellectual self-confidence and originality of thought. Shows a rigorous understanding of the topic and can apply well-established principles of paramedic science. Incisive argument is sustained throughout. Organises material systematically. Makes critical use of a very wide range of general and scholarly texts. Work is set within the context of research in the field. Shows impressive qualitative and quantitative ability where appropriate. Writing is polished, accurate and fluent. Presentation uses appropriate scholarly conventions.
70-79%	Demonstrates intellectual self-confidence and originality of thought. Shows a rigorous understanding of the topic and can apply well-established principles of paramedic science. Incisive argument is sustained throughout. Organises material systematically. Makes critical use of a wide range of general and scholarly texts. Work is set within the context of research in the field. Shows impressive qualitative and quantitative ability where appropriate. Writing is polished, accurate and fluent. Presentation uses appropriate scholarly conventions.
60-69%	Demonstrates a rigorous understanding of the topic. Understands and applies well-established principles of paramedic science. Argument is sustained, focussing consistently on the question. Organises material systematically, based around the argument presented. Makes critical use of a good range of appropriate general and scholarly texts. Shows awareness of research in the field and integrates this into written work. Shows qualitative and quantitative ability where appropriate. Writing is accurate and fluent. Presentation uses appropriate scholarly conventions.
50-59%	Demonstrates a good understanding of the topic. Understands and applies well-established principles in the field of paramedic science. Argument is sustained, but could be developed further in places. Organises material effectively. Makes critical use of appropriate general texts and scholarly literature. Shows awareness of research in the field and integrates this into written work. Shows qualitative and quantitative ability where appropriate. Writing is generally accurate, but shows occasional errors of grammar, syntax and spelling.
40-49%	Demonstrates some understanding of the topic. Understands and applies well-established principles in the field of paramedic science. Shows awareness of research in the field. Shows acquisition of coherent and relevant knowledge. Argument is developed, but lacks depth, rigour and complexity. Engages with appropriate general texts and scholarly literature. Shows reasonable qualitative and quantitative ability where appropriate. Writing often lacks fluency, clarity and precision and would benefit from proof reading and redrafting.
Fail 30-39%	Misunderstands or is confused about many aspects of the topic. Presents some appropriate knowledge and evidence base of paramedic science but handles these superficially. Argument is present, but is too often insufficient or incoherent. No sustained engagement with the assessment question. Has used some appropriate texts, but does not use a sufficient range of scholarly literature at this level. Writing is marred by continual errors of grammar, syntax and spelling. Presentation is poor and ignores appropriate scholarly conventions.

Poor Fail 0-29%	Misunderstands or is confused about most aspects of the topic. Presents some appropriate knowledge and evidence base of health and social care but handles these very superficially. No sustained argument is presented. Written work may be very brief and/or unfinished. Very little engagement with the set title/question. Has used inappropriate texts for intermediate level work. Writing is marred by constant errors of grammar, syntax and spelling. Presentation is poor and ignores appropriate scholarly conventions.
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